

# MANUFACTURERS' RECORD

A Weekly

Southern Industrial and Hardware

Newspaper.

VOL. XIV. No. 7.  
WEEKLY.

BALTIMORE, SEPTEMBER 22, 1888.

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AN ELABORATE VOLUME, CONTAINING AUTHORITATIVE TABLES BY THE CHIEF ENG., B. S. CHURCH. JUST ISSUED.

**PLANT** (by actual count from Table 18.)

Number of Ingersoll Drills used..... 100  
Number of Drills of all other kinds used..... 103  
**PROGRESS** (by actual figures from Table 8.)  
Average weekly progress in best 10 headings that used Ingersoll Drills exclusively (omitting all idle weeks) 30 ft.  
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All headings where Ingersoll Drills were used exclusively have been completed. Send for description of Aqueduct, with Engineers' Tables of Progress and Catalogue. Sent free.

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A. S. FISKE, Esq., 31 Corn Exchange, Minneapolis, Minn.  
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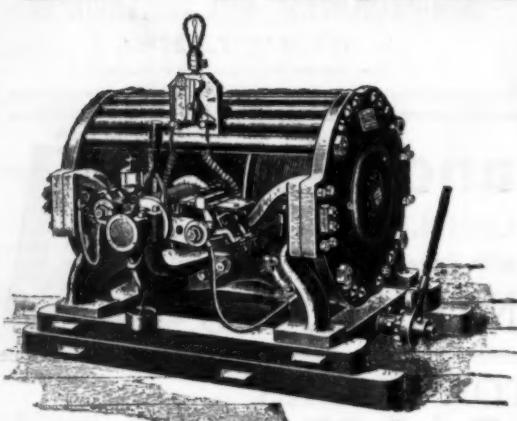
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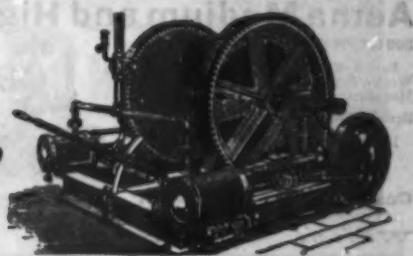
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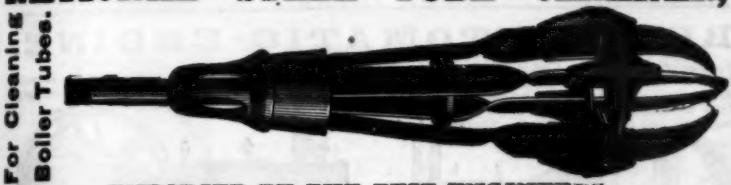


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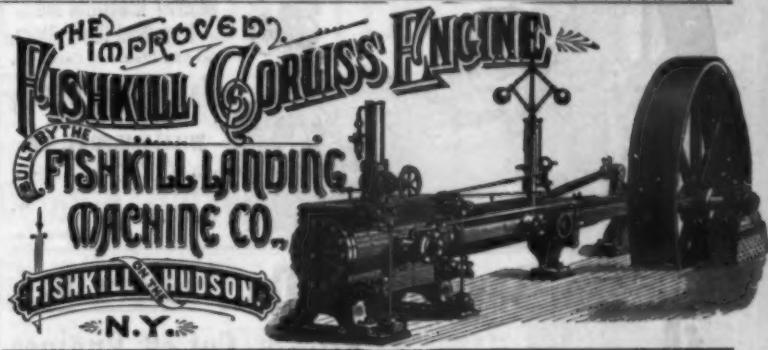
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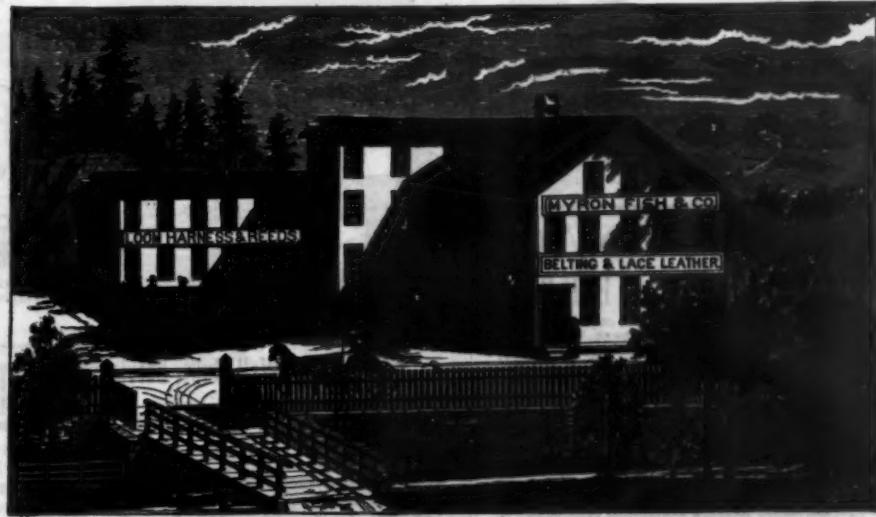
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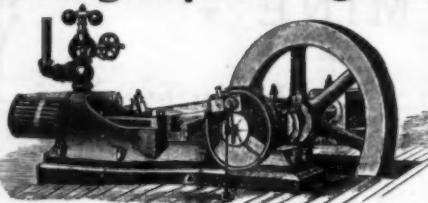
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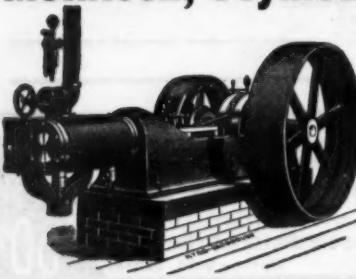
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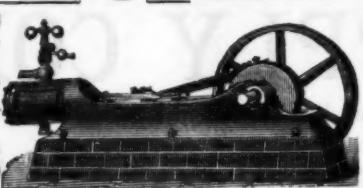
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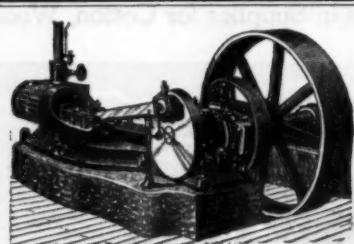
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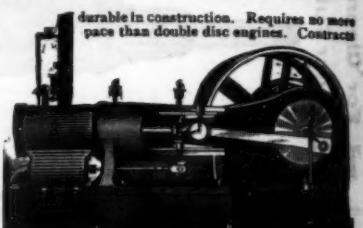
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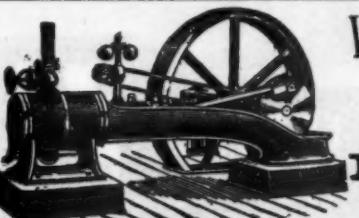
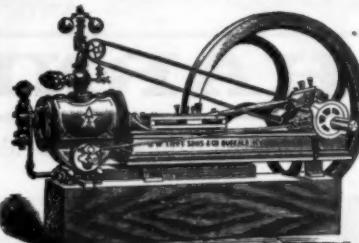
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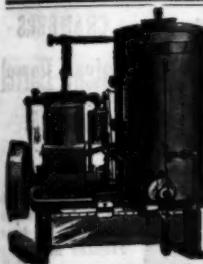
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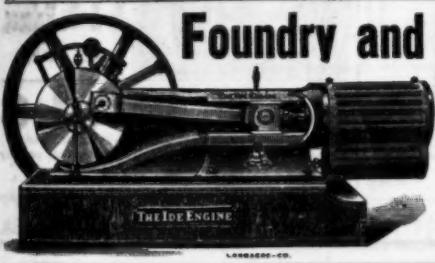
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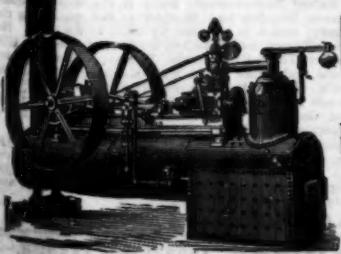
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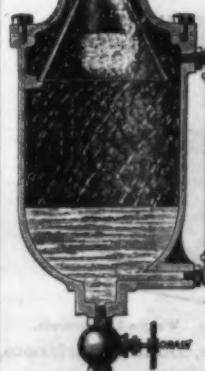
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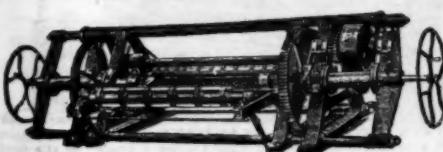


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L. POWER & CO.  
MANUFACTURERS OF  
Wood-Working Machinery

FOR  
Planing Mills, Sash, Door and Furniture Factories,  
43, 45, 47, 49 AND 51  
BOUTH 23D STREET.  
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PLANING MILL MACHINERY A SPECIALTY.

Veneer Machinery for Furniture Factories, Etc.



Veneer-Shutting Veneer Machines.

Strong, Solid, Durable, Accurately  
Made, Double Drivers, Positive  
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Automatic Change of  
Pitch.

Correspondence solicited.

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Painesville, Ohio.

BUY THE BEST.

Bullock's Diamond Prospecting Core Drills,

For Surface or Underground Prospecting.  
The Only Drills that will give an Accurate Record  
of every Strata Penetrated.

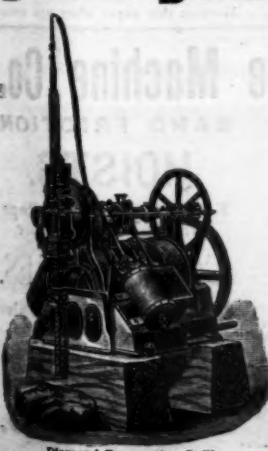
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Lane's Band Friction Hoisting Machinery  
Drum from 2 Feet to 25 Feet in Diameter.

Improved Corliss Engines,  
Slide Valve and Straight Line Engines,  
Eclipse Rock Drills, Air Compressors,  
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No. 138 Jackson Street,  
Write for what you want.  
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McLaughlin's Elevator,  
The Best in the World for the Money.

Adapted for Warehouses, Stores, Factories, Hotels,  
Public Institutions, and every place where merchan-

dis, &c., are transferred from one story to another.

5,000 IN USE.

This machine is very compact, self-contained and  
always in line. All the parts are easily replaced.  
It has an automatic limitation stop, and a special  
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Complete Steam Power Plants Furnished  
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BACON Winding Engines,  
Furnace Hoists  
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(With or Without Boilers.)

"Mining PLANTS," Concentrating  
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REFERENCES: - Croton Magnetic Iron Mine, Brewster, N. Y. Crown Point Iron Co., Crown Point, N. Y. Baldwin Iron Co., 52 Broadway, New York. Sea Island Chemical Co., Roslyn, N. C.

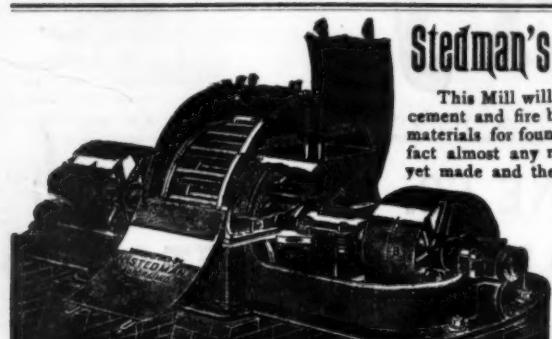
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## MINING MACHINERY, GOLD MILLS.



### Stedman's Improved Disintegrator and Pulverizer.

This Mill will disintegrate or pulverize materials of all kinds, for brick and tile, for cement and fire brick, and slag from open air furnaces for use in rolling mills, and materials for foundry facings, iron ores, animal matter in almost all conditions,—in fact almost any material that can be disintegrated. It is an improvement over any yet made and the result of practical experience.

Send for Descriptive Circular.

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Foundry & Machine Works,  
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### Roller and Detachable Chain Belting

Detachable in every Link  
FOR IMPROVED

ELEVATORS,  
Conveyers,  
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DRIVING BELTS,  
FOR HANDLING

Coal, Ores, Grain,  
CLAY, BRICK, &c.

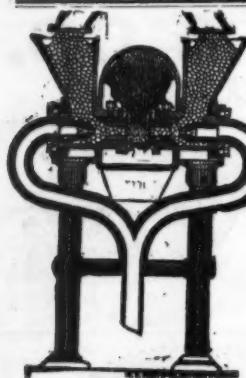
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The JEFFREY MFG. CO.

121 W. STATE ST.,  
Columbus, Ohio.

Also Manufacturers of the  
Largest Coal Mining Machines  
and Rotary Power Coal Drill.

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Sectional View of Pulverizer.

### PNEUMATIC PULVERIZER.

The principle of pulverization consists in the employment of

#### TWO POWERFUL OPPOSING CURRENTS

of dry super-heated steam, so arranged that they continuously charge themselves with crushed or granulated material, and by the great force and velocity of the steam currents the minerals are dashed against each other with such power of concussion as to cause the hardest ore to be pulverized to any degree of fineness desired. The high temperature of the super-heated steam currents employed, through which every minute particle of ore must pass, causes them to become very hot and dry, which produces a beneficial effect upon Sphalerite and ores containing rusty Gold. The light weight and simplicity of construction of the Pulverizer, the extremely small and inexpensive wearing parts are the WONDER and SURPRISE of all who witness its operation. The Company are prepared to furnish complete plants for pulverizing

10 to 200 Tons Per Day,

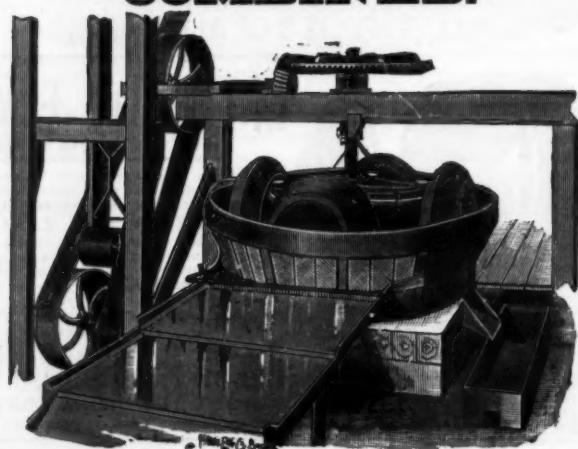
including a Sectional Steam Boiler supplying all the power required.

**PNEUMATIC PULVERIZER COMPANY,**  
L. F. HOLMAN, Pres.  
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2 and 4 Stone Street, New York.

WRITE FOR PARTICULARS.

### WISWELL Ore Pulverizer and Amalgamator COMBINED.



The following testimonial from Mr. Marsden, of the firm of Farrel & Marsden, manufacturers of Stone Breakers and Ore Crushers, Ansonia, Conn., speaks volumes for the Wiswell Mill:

#### Wiswell Electric Mining Machinery Co.:

GENTLEMEN—After carefully inspecting your mill and seeing it in operation, I do not hesitate to say that it is one of the best, if not the best pulverizer and most complete gold saving machine I have ever seen. Please accept congratulations for your success.

S. L. MARSDEN.

WE FURNISH A COMPLETE MILL FOR \$2,500, DELIVERED ON BOARD CARS.

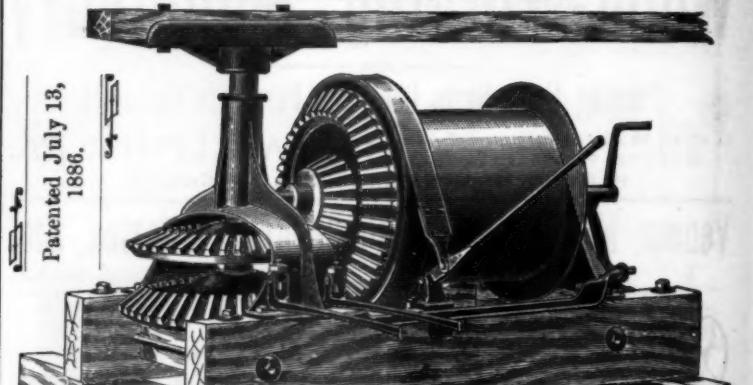
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**Wiswell Electric Mining Machinery Co.**  
4 POSTOFFICE SQUARE,  
A. A. REEVE, Treasurer.

BOSTON, MASS.

### THE CONTRACTORS' PLANT MANFG. CO.

129 ERIE STREET, BUFFALO, N. Y., U. S. A.



Patented July 13,  
1886.

AN IMPROVED HORSE POWER HOISTING MACHINE, with a combination of fast and slow speed. With fast speed a horse will lift 1,000 to 1,500 lbs. on a single line at a speed of 60 feet per minute, and with a single block 3,000 lbs. 40 feet per minute. With the slow speed a weight of 1½ tons with a single line, and with a single block 3 tons; with two single blocks 5 tons; with double and single blocks 7 tons. The speed single line 30 feet per minute, with single block 15 feet per minute.

In this combination of gears the user has the advantage of two machines embraced in one, with a saving of 25 per cent. in cost and 60 per cent. in weight.

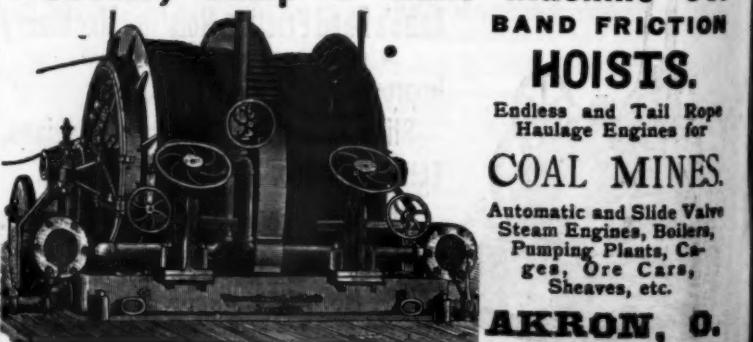
SIMPLE, DOES NOT GET OUT OF ORDER.

WRITE FOR ILLUSTRATED CATALOGUE OF

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For Bridge Builders, Contractors, Quarrymen, Mineral and Coal  
Miners, Masons and Builders.

DERRICKS AND CONTRACTORS' SUPPLIES. Mention this paper when you write.

### Webster, Camp & Lane Machine Co.



**BAND FRICTION  
HOISTS.**

Endless and Tail Rope  
Haulage Engines for

**COAL MINES.**

Automatic and Slide Valve  
Steam Engines, Boilers,  
Pumping Plants, Cages,  
Ore Cars, Sheaves, etc.

**AKRON, O.**

# RILEY & GRAY, BUILDERS AND IMPORTERS OF Cotton Machinery,

Also, WOOLEN AND WORSTED MACHINERY.

OPENERS, LAPPERS, ROLLER AND REVOLVING FLAT CARDS, DRAWING FRAMES (over 17,000 Deliveries, Working with Electric Stop Motion), SLUBBING, ROVING, SPINNING FRAMES AND MULES, WARPERS, SLASHERS, Etc., Etc.

Tempered Steel } NEEDLE POINTED } CARD CLOTHING. { READY GROUND

A Great Success. TRY IT! Over 70 New England Mills now using it.

Cuts, Descriptive Circulars, Estimates, Etc., on request.

19 PEARL STREET, — — — — — BOSTON, MASS.

## DON'T • FORGET •

THAT WE BUILD THE BEST MACHINES IN THE MARKET  
FOR EXTRACTING THREADS FROM SPINNERS' WASTE,  
AND FURNISH THEM ON TRIAL, SUBJECT TO APPROVAL.

Write for Prices. KITSON MACHINE CO., Lowell, Mass.

## BROWN & KING, MANUFACTURERS OF COTTON MILL SPECIALTIES.

Roller Covering, Loom Pickers and Strapping.

Dealers in Roller Coverers, Stock and Tools; Cotton and Woolen Mill Supplies.

Full Line "Hick's" United States Standard Ring Travelers, Mill Wire Goods Spring Cotters, Belt Hooks, Lacing, &c., kept constantly on hand.

Wrought Iron Pipe Fittings and Brass Goods. Southern Agents for the celebrated "B. C. & D. Oak Tanned Patent Lap Belting, Galvin Compound Wedge Gate Valve, Inhancer's Watchman Time Detectors, Diamond Emery Wheel Machine Co., &c.

Offices and Salesroom, No. 62 S. Broad Street, ATLANTA, GA.

J. A. V. SMITH,  
MANCHESTER, N. H.  
MANUFACTURER OF

## Steel Speeder Fliers.

One of the oldest manufacturers of Steel Speeder Fliers in the business having centrifugal and spring pressure, and the sole proprietor of certain indispensable improvements that can be procured nowhere else. Those about to erect mills or put in new machinery, will find it to their advantage to write for information.

THE PRICE IS LOWER THAN OTHERS.

## Taylor Lever Cotton Compress,

Cylinder 90 inches in Diameter.

We make for the above compress the following claims:

1st.—The most POWERFUL Compress in the world. 2d.—The STRONGEST. 3d.—The most SIMPLE, consequently the least liable to get out of order. 4th.—The most ECONOMICAL, effecting a saving of from 30 to 50 per cent in fuel. 5th.—It will compress as many, if not more, bales per day, as any other compress. 6th.—It is far the cheapest of any first-class Compress on the market. This machine is fully warranted to do the work as represented. Correspondence solicited. Address

FILES, TAYLOR & FILES, Manufacturers,  
HILLSBORO, TEXAS.

## The Campbell Cotton Compress Co.



OFFICES,  
59 & 61 Walnut St.  
Cincinnati, Ohio,  
U.S.A.  
Cheapest and Most  
ECONOMICAL.

The Campbell Compress is the only machine that will run on small lots of cotton at a profit. Adapted to a small market. It does work equal to the best, and costs but one-half. Fully guaranteed. Correspondence solicited. Address

CAMPBELL  
Cotton Compress Co.  
CINCINNATI, O.

Patent Needle Pointed  
Hardened and Tempered Steel Wire

## CARD CLOTHING,

FOR COTTON AND WOOLEN MILLS.

SEND FOR SAMPLES.

T. K. EARLE MFG. CO. WORCESTER, MASS.

## LOWELL CARD CO.

## CARD CLOTHING of Every Description,

— Set With Round, Angular, Double-Conver Iron or Steel Wire. —

LOWELL, MASS.



## • WATERS & GARLAND, • GENERAL MILL AND FACTORY SUPPLIES

Belting, Packing, Hose, Lace Leather, Wood Split Pulleys, Pipe and Fittings, Inspirators, Cotton Waste, Valves, Steam Gauges, &c.

433 MAIN STREET.

Louisville, Ky.

## The Hill Automatic Sprinkler.

The Most Perfect Sprinkler for Fire Protection.

## • MANY IN USE. •

Officially approved by the Mutual Factory Insurance Companies of New England. Approved by all Insurance Companies—Stock and Mutual. It is sensitive, prompt,



certain to act; an unequalled distributor of water, unaffected by age. Has no brass to brass contacts to oxidize and stick. It never leaks. Descriptive pamphlets on application.

## Hill Automatic Sprinkler Co.

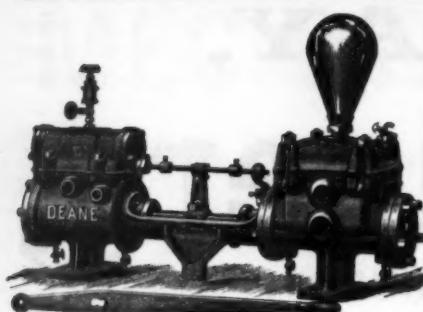
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Fine Out Work  
A Specialty.  
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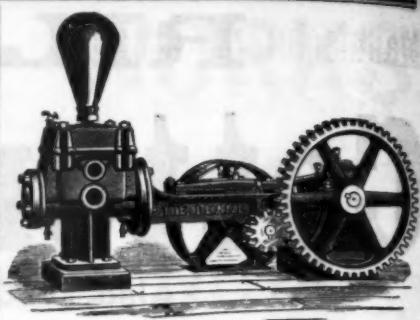
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Steam and Power Pumping Machinery,  
FOR ALL PURPOSES.

MORTON, REED & CO., Agents, BALTIMORE, MD.

Send for New Illustrated Catalogue, No. 22.



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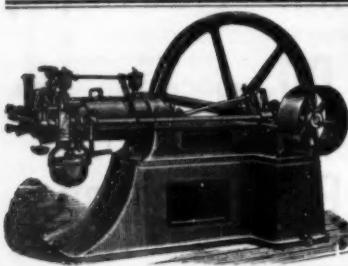
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MECKLENBURG IRON WORKS, Charlotte, N. C.

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Over 10,000 in Use.

## Otto Gas Engine

30 to 70 per cent. less Gas consumption than ANY OTHER ENGINE.

Working Without Boiler, Steam, Coal, Ashes or Attendance.

Started instantly by a Match, it gives full power immediately. When stopped, all expense ceases.

Guaranteed to Consume 25 to 75 Per Cent. less Gas than any other Gas Engine Doing the same Work.

No explosions, no fires nor cinders, no gauges, no pumps, no engineer or other attendant while running. Recommended by insurance companies.

UNSURPASSED IN EVERY RESPECT for hoisting in warehouses, printing, ventilating, running small shops, &c. Sizes: 1 to 25-Horse power.

Branch Office, 120 Washington St., Chicago.

OTTO GAS ENGINE WORKS, Schleicher, Schumm & Co. 33d & WALNUT STS., PHILADELPHIA.

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Automatic Sprinklers,  
Roving Frames,  
Rabbeth, Sherman, } Spindles,  
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Double Adjustable Spinning Rings,  
Twisters, Spoolers, Reels,  
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Slasher } Warpers,  
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Reeds and Combs,  
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Balling Machines,  
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Lever Screws for Roving and  
Spinning Frames, Lifting-Rod  
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Temples } Dutcher, } With Latest  
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Shuttle Guards, Durkin's  
Thick and Thin Place Preventer,  
Getchell's Improved Thompson  
Oil Can, Belt Hole Guards.

Milled Machine Screws,  
Special Milled Work  
of all kinds, etc., etc.

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For Spindles, Temples and all  
our Machinery furnished  
at short notice.

Send for Prices.

TELEGRAPH ADDRESS AND RAILROAD  
STATION, MILFORD, MASS.

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## —\*FRICTION DRILL.\*—

Tested Four Years Before Placing on the Market. Superseding the Ratchet.

Machinists, Boiler Makers, Mechanics and all parties having use for a Ratchet will find this Drill a great saving of time. Can be used in contracted places where a Ratchet cannot. Send for Illustrated Circular and Price List. Mention Paper.

F. F. WATERS MANF'G CO.

38 OLIVER STREET, BOSTON, MASS.



Smith's Patent. Patented June 5, 1881.

YORK MFG. CO.  
YORK, PA.



## ICE & REFRIGERATING MACHINES.

Engines and Boilers.  
Automatic Engines.  
Yacht Engines.  
Factory Engines.

YORK  
IMPROVED

Send for Catalogue of Special Machinery Gearing, etc.

## TURBINE WATER WHEELS.

CLEVELAND CITY FORGE & IRON CO. { Cleveland, Ohio. } The Best & Cheapest Pressed Wrought Iron Turnbuckles.

ALEXANDER BROWN & SONS, { ESTABLISHED 1811 } BALTIMORE. Transact a General Foreign and Domestic Banking Business.

Buy and sell Bills of Exchange on Great Britain, Ireland, and other foreign points. Issue Commercial and Travelers' Credits in Sterling, Francs or Dollars, available in any part of the world. Make Telegraphic Transfers of Money between this and other countries. Make Collection.

tions of Drafts, Railroad, Municipal and other loans negotiated, and advances made on Cotton, Grain, Tobacco and other approved securities. Interest allowed on Deposits of Banks, Bankers, Corporations and individuals. Members of Baltimore Stock Exchange. Buy and sell Stocks and Bonds in this and other cities. Private wire to Philadelphia and New York.

BROWN BROTHERS & CO., New York, Philadelphia and Boston.

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Washburn & Moen Mfg. Co., Worcester, Mass.

—MAKERS OF IRON AND STEEL.—

MANUFACTURERS OF



Iron, Steel and Copper Wire, Wire Rope, Barbed Wire.

Chicago Works, 307 Lake Street.  
New York Works, 14 Oneida Street.

## Manufacturers' Record.

PUBLISHED EVERY SATURDAY BY THE  
MANUFACTURERS' RECORD CO.J. W. BIGSBY, President.  
R. H. EDMONDS, Treasurer.

R. H. EDMONDS, Editor and Manager.

OFFICE,  
COR. EXCHANGE PLACE AND COMMERCE STREET  
BALTIMORE.

NEW YORK OFFICE, - - 22 Cortlandt Street.

SUBSCRIPTION \$4.00 A YEAR.

BALTIMORE, SEPTEMBER 22, 1888.

THE following letters should be read by those who contemplate advertising and are looking for the best medium:

PROVIDENCE, R. I., August 3, 1888.

Editor Manufacturers' Record:

Your favor of August 1st in regard to our advertisement received this morning, and in reply will say that we wish you to continue the advertisement as heretofore. We have advertised more or less in other papers and are doing so now, but know of no advertisement, so far as we are able to judge, that brings as satisfactory results for the money expended as our card which has been in the MANUFACTURERS' RECORD for the last year. Yours truly,

C. R. MAKEPEACE & CO.,  
Architects and Mill Engineers.

The Schenck Belt Holder &amp; Shifter Company.

NEW YORK, July 26, 1888.

Editor Manufacturers' Record:

Of the great number of inquiries which we have received regarding the Schenck belt holder and shifter, a large portion are the result of our "ad." in your journal. We also find that the information contained in its columns is very valuable in our business.

Respectfully, THE SCHENCK  
BELT HOLDER & SHIFTER CO.Frank W. Swett, Manufacturer of  
Band Saws and Band Saw Tools.

CHICAGO, ILL., June 1, 1888.

Editor Manufacturers' Record:

Please find enclosed contract signed for advertising in your paper—third renewal. I have had a fine trade so far this year, and I consider your paper the best medium I know of to reach the machinery dealers and manufacturers, and that is why I continue in it. I always stick to a good thing. Have had quite a large trade South this season.

FRANK W. SWETT.

A. Wyckoff & Son, Manufacturers of  
Wood Water Pipe.

ELMIRA, N. Y., June 30, 1888.

Editor Manufacturers' Record:

We are very much pleased with the results of advertising in the MANUFACTURERS' RECORD. We have had numerous inquiries and have sold considerable goods, which we can trace direct to our advertisement in the MANUFACTURERS' RECORD.

A. WYCKOFF &amp; SON.

Cordesman, Meyer & Co., Manufacturers of  
Wood-Working Machinery.

CINCINNATI, O., January 11, 1888.

Editor Manufacturers' Record:

We are highly pleased with the returns from our advertisement in your journal, and take pleasure in commanding it to others in our line as a valuable medium for reaching the trade. Yours very truly,

CORDESMAN, MEYER &amp; CO.

F. F. Waters Manufacturing Co., Manufacturers of Smith's Patent

Fricton Drill.

Boston, Mass., February 4, 1888.

Editor Manufacturers' Record:

It gives us pleasure to state that our "ad." in the MANUFACTURERS' RECORD has brought us, on the average, about 30 letters per month. We consider it a paying investment. Respectfully,

F. F. WATERS MFG. CO.

F. F. Adams Co., Manufacturers of  
Patent Household Articles.

ERIE, PA., March 10, 1888.

Editor Manufacturers' Record:

The "ad." we have in your paper we consider one of the best investments we have made this year. We are receiving numerous enquiries from first-class houses, asking for catalogues and best cash prices. This is our second year with you, and we can trace a number of our orders direct to our "ad." in the RECORD. We have tried other papers who claim to reach the trade we are seeking, and have settled on the MANUFACTURERS' RECORD as being superior to all others for Southern trade. Yours truly,

THE F. F. ADAMS CO.

## Cheap Fuel.

Manufacturers everywhere are constantly searching for cheap fuel. The close competition in all industries necessitates a reduction of all working expenses to the lowest possible point, and as fuel is one of the heavy items of expense, the demand for cheap fuel is never fully satisfied. The discovery of natural gas seemed at one time to have solved the question, so far as the sections where it is found are concerned, but it is now evident that the supply is being exhausted, and manufacturers who have depended upon it are now looking for something to take its place.

Manufacturers who have used gas as a fuel are not disposed to go back to coal, the superiority of the former, it is said, being very great. Various processes to meet the demand for cheap fuel are beginning to claim public attention, and fortunately they are of such a character as not to be confined, like natural gas, to any one section, but can be used anywhere. We have recently given an account of the fuel gas now used by the Dissston saw works, near Philadelphia, the cost of which, it is thought, will not exceed 5 or 10 cents a thousand feet.

In Pittsburgh the Eureka Gas Fuel & Light Co. is making an oil gas which, it is said, has proved very satisfactory. It has been tried in the large steel works of Oliver Bros. & Roberts, supplying all the heat required for a Swindel heating furnace, heating about 36 tons of steel billets a day on the average. It is claimed that the cost was only about one-fifth as great as coal at \$1.25 a ton, and very much less even than what natural gas costs Pittsburgh users. Another fuel to which attention is also being called for forging and welding is crude petroleum, as used in a process owned by the Aerated Fuel Co., of Springfield, Mass., and very strong claims are made as to its cheapness.

This matter of cheap fuel is of vital interest to the South. Natural gas gave those who could use it a great advantage over all others, and while the South had less to fear from competition with the manufacturers who used this extraordinarily cheap fuel than other sections, still it gave to the natural gas regions a great advantage for manufacturing at a low cost. The introduction now of fuels rivaling natural gas in cheapness, and which can be used in any part of the country, takes away the advantage in this line heretofore enjoyed in the natural gas territory, and places all sections on a par so far as cheap fuel is concerned, while all other advantages are on the side of the South. In all industries dependent upon coal as a fuel the South is of course far ahead in cheapness, for the vast coal wealth of the South affords an unlimited supply of the very best grades of coal at the lowest cost.

## Augusta's American Pluck.

Cheerfulness, pluck and perseverance are American characteristics. Come what may of disastrous visitations, they are faced with indomitable courage, and even while at their worst the communities afflicted rise superior to them, and as soon as they begin to abate they apply themselves to the work of repairing their losses, and generally with such success that they regain far more than they had lost.

The great fires in Portland, Chicago and Boston were followed by such immediate rebuilding of the places laid waste that soon there was nothing to designate to strangers the limits of their burned districts except the magnificent new structures that covered them. The epidemic that desolated Memphis a few years ago taught its people the necessity of scientific sanitation, and at a great price they secured it, and in so doing gave to their city a reputation for enterprise as well as for healthfulness that has increased materially its population, its business and its wealth. The earthquake that shook down much of Charleston and temporarily checked its business, while subjecting its people to immense losses, also served to bring out such evidences of undaunted courage as evoked the admiration of the world. The citizens of Jacksonville, the latest sufferers from a yellow fever epidemic, have borne themselves with the same heroic fortitude. For a long time they fought the pestilence unaided, and not until it had broken down many of their bravest and most devoted citizens did they appeal to the country for assistance.

Most recent of all cities to endure calamity is Augusta, the greatest cotton manufacturing town of the South. The heavy rains that fell many days upon the Appalachian mountains and the States east and south of them converted brawling brooks into roaring torrents, swelled the streams that have their sources in that mighty water shed into great rivers, and these, pouring their vast volumes of waters into those to which they are tributary, caused them to rise to an unprecedented height and to overflow their banks, until the country for many miles on either side was submerged, and farm buildings, railroad tracks and bridges were swept away, while tens of thousands of acres, white with cotton or yellow with ripening corn, were overwhelmed by the rushing flood. Augusta is built on the alluvial lands created by the Savannah river. Her mammoth mills obtain their motive power from a canal system that brings its waters to their wheels. Forty-eight years ago there was a tremendous rise in the same stream that caused much damage and loss. Since then the river has kept within its banks and been an invaluable servant to the prosperous city. But on Monday of last week the stream rose in its might

to an unequalled height. It turned the streets into navigable water-courses, it broke down the canal embankment, it undermined buildings, it flooded the lower stories of stores and mansions, and drove the residents of many cottages to their roofs for refuge. For two days all business was suspended, except the work of rescuing those in peril and the saving of perishable property from the flood.

One of the city's chief institutions, the Augusta Chronicle, was the sole exception to the general suspension. With an enterprise characteristic of Editor Walsh and his able staff, the great calamity was made that paper's opportunity. Its entire force was out both days watching the progress of the flood, rescuing those in peril, and conveying to the office accurate reports of the scenes, disastrous, pathetic and humorous, that were everywhere encountered. On Tuesday, at 5 o'clock in the morning, that paper went to press, with the water but an inch or two below its boiler furnace, while the worn-out editors and reporters snatched a few hours of much needed sleep before resuming their arduous and dangerous labors. A million dollars lost, railroads unavailable, factories shut down, several thousand people to feed, streets covered with the debris, gardens shorn of their summer glory, cellars flooded, wreck and ruin everywhere—these were disclosed by the receding waters. But Augusta's real American pluck was greater than the calamity. On Tuesday evening, while the streams still coursed their way through the streets to the swiftly falling river, a meeting of citizens was held at the Arlington hotel. Fireworks blazed from its balconies, and the gleam of rockets was reflected in the fast currents that flowed through all the streets. The people were cheerful to a surprising degree. Enthusiastic speeches were made and a strong determination evinced to make the best of the situation and to remove all traces of the flood as fast as possible. The next day work began by carrying food to the people who had none and by surveying the damages and ascertaining what must be done. On Thursday Mayor May had a thousand men at work and the railroad companies several hundred. The Chronicle published a complete list of the estimated losses of firms and individuals; the efficient board of health recommended and began to enforce sanitary measures; the citizens turned to with a will to restore order in their places of business and their homes. Wednesday morning the Chronicle in ringing sentences had inspired its people to enter upon the great work before them. It said:

But whatever the loss of property, our people—profoundly grateful to the Giver of all good for their deliverance from threatened disaster—are undaunted and determined to face the future with renewed energy, and keep Augusta, the great commercial and

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## MANUFACTURERS' RECORD.

manufacturing center of the South Atlantic States.

To-morrow's sun will be brighter and our hearts will be stronger by reason of the dangers through which we have passed, and the citizens of Augusta will be more closely united for the public weal.

Our national exposition will be opened on the 10th of October, and to this exposition the people of the United States are invited to witness the marvellous growth of the agricultural, manufacturing and mining interests of the South.

This exposition will easily demonstrate Augusta's claim to be the leading cotton manufacturing city in the Southern States.

And in another place, after specifying the work required to make the city look "spick and span once more," it said:

Here is our chance to show ourselves superior to this disaster. The eyes of the whole world are upon Augusta. There is no stick-in-the-mud spirit about us. We are all water and a mile wide. We have had the flood and we propose to have the rainbow, if we paint it ourselves.

The Chronicle knows of what stuff the citizens of Augusta are made. They have entered upon their duties with zeal and enthusiasm. They will thoroughly renovate their city and make it brighter and more beautiful than ever, and when, on the 10th of October, their great national exposition shall open, not the least of all the wonders that visitors will see will be the illustration the city itself will afford of the cheerfulness, pluck and perseverance of Americans.

#### Supporting Local Papers.

The people of Radford will not look in the direction of advertising the town. They will even attempt to cripple their town paper by patronizing offices of other towns with their job work and so forth. Still everyone expects the Democrat to boom Radford for all it's worth.—Radford (Va.) Democrat.

We have seen many cases of this kind, and some business men seem to be incapable of appreciating the fact that every good local paper does its town ten times as much good as it is ever paid for. Men having large interests in a town and deeply concerned as to its progress often try to see how little they can do for their own local papers. The papers of the South are to-day doing far more for the good of their country than they receive credit for. Day after day and week after week they are telling of its advantages of soil, climate and minerals and of its progress. The facts which they give are widely published in other papers, and thus the good work is carried far beyond their immediate circle of readers. The MANUFACTURERS' RECORD has often noted with admiration the great work that Southern papers are doing, and regretted to see how poorly in many cases they are supported by the people whose interests they are serving.

WADE'S FIBRE AND FABRIC, of Boston, is one of the most attractive journals in the country devoted to the cotton and woolen industries. It is bright and interesting and well deserves its marked success.

SHEFFIELD is to be congratulated upon having definitely secured the location of large machine shops to be erected by the Memphis & Charleston Railroad. There will be some 14 or 15 extensive buildings, and fully \$300,000, it is said, will be invested in these shops. The plans have all been made, and it is intended that work on the buildings shall be commenced promptly and pushed through. These shops will probably employ at least 500 men and will build passenger as well as freight cars, and possibly locomotives. They will prove of marked advantage to Sheffield and will help on the growth of that town.

UNFORTUNATELY a large part of the South seems to have gone wild over the yellow fever scare. The slightest sickness is wildly exaggerated and telegrams are sent all over the country, doing an immense amount of harm that can not be fully counteracted by subsequent denials when it is found that the report of cases of yellow fever was without foundation. It is much to be regretted that calmer counsels have not prevailed and the excitement aroused everywhere avoided. This wild excitement and constant dread of the disease are liable to magnify every case of fever, however trifling, into a yellow fever panic.

SUBSCRIPTION books were opened at Rockmart, Ga., last week for local subscriptions to the stock of a company lately organized with a capital of several million dollars to develop the slate and marble interests of that section, and in a half hour \$200,000 had been pledged in the little town, which probably does not number over 1,000 to 1,500 inhabitants. This is the kind of enterprise which the South is displaying.

THE Greensboro Land & Improvement Co. has been organized at Greensboro, N. C., with a capital stock of \$100,000, with a view to the general advancement of that town, but especially for the present to build enough tobacco prize-houses and factories to accommodate the growing trade of that prosperous place. The Patriot says: "With this step begins the dawn of a new era of prosperity for Greensboro."

THE S. C. Forsyth Machine Co., Manchester, N. H., manufacturers of saw mill machinery, shafting, mill gearing, etc., write us under date of September 10th, 1888:

"We are glad to say that we are satisfied with our advertisement in the MANUFACTURERS' RECORD for the past year, and you may therefore continue it on the same basis for the ensuing year."

A MEETING of the stockholders of the Birmingham Mineral Railroad will be held on November 12 to increase the capital stock \$3,000,000. This probably means further extensions of this road, which is a part of the Louisville & Nashville system.

#### Cotton Manufacturing Last Year.

The Financial and Commercial Chronicle, in its annual review of the cotton trade of the country, says:

With regard to the cotton goods industry in the United States, the year, though among the best (even better than the previous year taken as a whole), has had its lapses, the demand at times being disappointing and the tone of the market variable. But these have proved mere temporary depressions, the season ending much as it began, with buyers fairly active, production absorbed, stocks in all cases small, and prices remunerative. Manufacturers have been working and are still working largely under contract, and the shipments direct from the mills were never so large as now. Then, again, a few years ago the methods of business underwent an important change. Up to that time distributors had in good part carried the stocks of goods; since then they have shifted the load to the producers' shoulders. Hence now, when manufacturers or speculators have no surplus, there is none. The past season the trade has been remarkably free from speculation; so as producers of leading goods have, as stated, been all the time under contract, any slight revival has taken off the less desirable makes, which alone have shown in surplus at any time during the season. As a consequence, and also as indicative of the general situation, we may add that more mills have made money this year than last year, bringing some within the list of dividend payers which have for years stood outside the favored circle. Evidence of a vigorous undertone to the cotton goods market, not only in America, but in Europe as well, is likewise found in the quiet, easy way in which it has absorbed our large crop of cotton.

Probably the most conspicuous feature in the demand for goods, and the one which has done most to sustain the market this year, has been the uninterrupted inquiry from the South—never before so large and constant. Western wants have been more fitful, a check to speculation and railroad building, with only moderate crops, having lessened the needs of the people. But in the South the activity and development descriptive of the previous year have in no considerable measure abated.

We are informed from good sources that the balance sheets of the mills show much better than even the dividends have indicated. As a consequence, spindles have increased about 10 per cent, and are increasing rapidly; consumption of cotton has increased 18 per cent., and will take another jump this year. In the end, and not long hence, there may be another overproduction of those classes of goods manufactured in the South if we continue to shut out all customers except those our home markets furnish. But at all events, for the time being, this industry is not only growing but solidifying. It has passed its pubescent period.

We have secured as full a census of the Southern cotton mills in the particulars sought as can be obtained. The number of mills in operation have been 235, having 1,177,901 spinning spindles, against 219 last year, with 1,006,662 spindles, and 164 in 1879—the census year—with 561,860 spindles. In addition to these there are now 17 more mills almost completed, and about 40 more actually building; while we have reported to us by old mills 208,000 new spindles, which they state it in their intention to put in in the coming year. Taking these facts in connection with the figures of actual consumption—443,373 bales of 452½ pounds net weight this year, against 398,466 bales of 450.88 pounds net weight last year and 188,748 bales of 464 pounds net weight the census year—one obtains

an extremely gratifying exhibit of the progress made and making in this industry in the South. The aggregates of our detailed returns, arranged in States, are as follows:

States.	No. of Mills	Number of Spindles.	Consumption.
		Looms.	Bales.
Virginia	11	60,549	1,779
North Carolina	81	240,081	5,856
South Carolina	32	24,149	5,332
Georgia	52	301,684	8,847
Florida	16	79,04	1,413
Alabama	8	41,956	986
Mississippi	2	2,500	778
Louisiana	1	2,18	500
Texas	1	2,050	500
Arkansas	27	85,490	1,852
Tennessee	1	6,501	150
Missouri	3	18,800	573
Kentucky	235	1,177,901	27,566
Totals, 1887-8	235	1,177,901	27,566
Totals, 1886-7	219	1,006,662	24,605
			443,373
			398,466

MARVELOUS things are to be done, so it is said, by a syndicate, of which Mr. John H. Martin, Tremont House, Chicago, is at the head. This wonderful syndicate has, it is claimed, \$200,000,000 at its command to be used in building short-line railroads from every town of 1,000 inhabitants or more in Western and Southern Missouri, Arkansas and Louisiana not now on a railroad, provided they are not more than 20 miles from some leading road. It will build gas and water works and electric light works wherever wanted in towns of that section of 1,000 inhabitants and over; build "lead and zinc smelting works, canning factories, boot and shoe factories, iron rolling mills, paper mills, flouring mills, cotton and jute bagging factories, woolen factories, manufacturers for plows, wagons and all agricultural implements, paper bags, etc.;" build a main line of railroad from Kansas City to some harbor on the Gulf; run steamships to principal ports of Mexico, Central and South America and the West India Islands, and finally, rates of "transportation will be placed at one-half of the present railroad charges. Only so much will be charged as to pay operating expenses and 5 per cent. interest on the cost of construction." It is well that the company has \$200,000,000 on hand, or rather at its service, to be used as required, for it will take a pretty good portion of it to carry out all these schemes.

THE experimental work of the new glass works at Gate City, Ala., has proved remarkably successful, and a heavy increase in capital and an enlargement of plant will, it is said, be made. The sand for the glass is in inexhaustible supply and costs only 37½ cents per ton, while it is said that Pittsburgh glass works pay on an average seven or eight times as much.

MR. J. A. GABOURY, of Jacksonville, Ala., has discovered a vast bed, almost a mountain, it is said, of red ochre, from which he can easily take 50 tons a day. This ochre mine is located between Jacksonville and Anniston, and its development will add another important industry to that section.

THE Crown Cotton Mills, of Dalton, Ga., have just declared an annual dividend of 10 per cent. and put aside 15 per cent. more for investments in machinery. Cotton manufacturers in the South seem to be reaping a harvest.

## CARTERSVILLE, GA.

A Mountain Town in the Empire State of the South.

A Coming Industrial Center in Northern Georgia.

How Wise and Judicious Investment Builds Furnaces, Manufacturers and Mills.

A Word to the Capitalist and the Investor.

[Special correspondence MANUFACTURERS' RECORD.]

CARTERSVILLE, GA., Sept. 10, 1888.

In Northern Georgia, along the Western & Atlantic Railroad, and at the terminus of the East & West Railroad, in Bartow county, stands out a typical town of push and energy—a coming industrial center of the grand old Commonwealth of Georgia—situated on the fertile plateau of the fragmentary foothills of the Cumberland as they break and disseminate in the lowlands of Georgia and Alabama. The topography of this section ranges between broken foothills filled with minerals, between which are interspersed fertile valleys in which grow everything necessary for the comfort, sustenance and happiness of man.

And the name of this favored, fortunate and coming industrial center is Cartersville, Georgia.

What of Cartersville, asks the reader in search of practical facts and figures.

It is situated at the junction of the East & West Railroad of Alabama (a through line to the great Alabama iron center, Birmingham, and the famous Coosa coal fields) and the Western & Atlantic Railroad, a through line to Chattanooga, 90 miles, and Atlanta, 48 miles.

Below the town stretches out the broad and fertile valley of the Etowah, with its spreading fields of rich alluvial soil; on the east and northeast rise the mineral-bearing mountains of the Allatoona range, easy of access and daily discharging a little of their vast wealth through the streets of the town. North and west are the valleys of Pettit's, Two Run and Pine Log creeks, the products of which find their market in town.

It is the county seat of Bartow county, a place of about 4,000 inhabitants, at an altitude of 1,212 feet, with a climate hardly surpassed this side of the Rockies, and destined at no distant day to become the resort of the tourist and health seeker.

Why?

Because it is high and dry.

Because the water is unsurpassed.

Because no epidemics find lodgment here.

Because the laws of hygiene and sanitation are strictly enforced.

Because the people are hospitable and progressive.

What of its position as an industrial center and the outlook for the future in comparison with other places less favored by nature?

Says Evan P. Howell, the editor of the Atlanta Constitution, one of the best informed men in the South upon the practical issues of life and upon the prosperous, progressive South: "Cartersville has a future roseate with triumphs in the industrial means and measures looking to the grand achievement of everything which will better the condition of her people and lift them up beyond want and drudgery. The mineral wealth here is unsurpassed, while the soil will produce all the necessities of life. Energy and capital will tell the story in a few years; then the country will wonder why the people, like the Indians in 1836, were apparently oblivious

to the great hidden wealth scattered everywhere around."

Major Charles H. Smith (Bill Arp), the eminent Georgian, whose fun-provoking articles always have a tinge of the practical running through them, says with force and favor: "The time is not far distant when Cartersville will rise up (something like an infuriated woman) and demand why this and that has not been done when nature has done so much for man, for man's own advancement and enjoyment. Then there will be no excuses accepted like 'cause,' and 'I don't know' and 'I can't tell,' &c., &c., but a real, substantial reason must be given." Continuing, says this well-known gentleman: "Cartersville possesses all the natural advantages to make her the envied of all her industrial sister cities, and it is only a question of a short while when the flood tide of energy and capital will develop and make known the boundless wealth and resources of this section of Georgia."

In speaking of Cartersville, Mr. Julius L. Brown, a well-known solicitor and attorney, not only familiar in a high degree with Kent and Blackstone, but conversant with the industrial needs and the social problems of the South, says with practical foresight: "The time has come, not only for Georgia, but the entire South, to cease to be dependent upon other sections, but to put the shoulder to the wheel of progress, and develop and make known to the world at large all the blessings, advantages and resources under which we live. Cartersville can, with the proper force, capital and energy put forth, become a second Birmingham, Ala., or a Reading, Pa. It is only a question of time when the ruts of the past dead days will be harrowed over by the exigencies and the demands of the hour, and then progress and prosperity will spring up everywhere, and in no place is there so many opportunities presented as one finds in this typical Georgia town."

Many other citations might be given showing the advantages of this place, from sources just as practical and reliable, but these are sufficient to demonstrate that the town of Cartersville has a future worthy the consideration of the capitalist and the investor.

In Cartersville are about fifty places of trade, great and small, in which can be found quite complete lines of dry goods, groceries, drugs, &c. Here also are the Sam Jones Tabernacle and the Sam Jones Female College, nearly completed. The town is cut in twain by the W. & A. Railroad north and south, and east and west by the E. & W. Railroad.

The St. James Hotel is located on the south side of a park or square, facing the north, with three long colonades, and presenting a beautiful view from its extensive, shady balconies of 4,000 square feet that crowd into the park trees in front. The sides of the park are lined with business houses and dwellings. In this park are several wells of free and limestone water.

Cartersville lies on a succession of little mounds, undulating between. On either side runs the Etowah river and Pettit's creek, from one to two miles distant.

It was a rare pleasure for your correspondent to study "the force of circumstances" and the facts relative to this coming industrial center in the grand old Empire State of the South. After a week's stay here, going and coming, inspecting this locality of ore and that place where the minerals crop above the earth's surface, looking at this well-stocked farm and that manufactory of the smaller products, the shipment of ores to places nearby, the handling of tons of limestone, and the traffic in the many agricultural products grown within a radius of ten miles, it was then no longer a wonder why Cartersville had taken on new life and is now stretch-

ing out for new avenues of trade and traffic.

Bartow county (named after the hero of Manassas), of which Cartersville is the county seat, is often spoken of as the banner county of the State; but of Georgia's 187 counties it would be hard to determine which carries the banner. In agriculture this county is second to none; in minerals it is marvellously blessed, while in forestry it is prolific and varied; only one county goes ahead of it in number of available water powers, and it has a fair showing of manufacturing. In average yield of cotton, corn, wheat, oats, potatoes, peaches, apples, pears, grapes and general farm produce it has always been among the first dozen counties in the State. It is only rivalled by its sister, Polk, in shipments of iron ore; in manganese it so far stands alone, although manganese mines are now being made ready to work all through Northwest Georgia. The water powers are peculiarly suited to mining purposes; none of them are very large, but there is not a square mile in the county which is not traversed by one or more courses.

A few years ago Cartersville was a stopping point for the night. To-day it is a place where the attention of the capitalist, the investor and the prospective settler has his eye turned. The reasons are obvious:

Being in the center of a rich producing mineral belt and in a fine agricultural section, it is well adapted for great development.

Owing to the splendid water nearby and the wonderful mineral resources, there is a splendid opportunity for the fostering and maintenance of factories, of whatever kind, nature and capacity.

The climate is attractive and salubrious. Lying between the extremes of the biting cold of the North and West, and the elevating heat of the far South, it offers special attractions to the tourist and health-seeker.

The people are frugal and industrious, as well as hospitable and progressive. Hence there is a happy meeting-ground for all who come to prospect and investigate.

Progress and advancement are seen on every hand. During the past year she has succeeded in establishing the following in industries, and still greater results may be expected in the future, when capital continues to come this way:

INDUSTRIES ESTABLISHED DURING THE PAST YEAR.

Platt Steel & Furnace Co.	\$300,000
Water Works	75,000
Gas Works	85,000
Dynamite Factory	10,000
Sam Jones Female College	15,000
Ochre Mills	10,000
Pianing Mills	8,000
Novelty Works	6,000
Foundry	5,000
Other Industries	50,000

With the present outlook for development, it is impossible to predict the growth of this place, for everything is now pointing to a very rapid advance in manufacturing and mining interests in and around this city.

EXCEPTIONAL FACILITIES.

Few places, if any, enjoy, according to the population, so many advantages in railway facilities as Cartersville. The Western & Atlantic Railroad, running from Atlanta to Chattanooga, runs through the center of the town, and in no portion of the South is there to be found a better equipped or more ably managed road than the old reliable Western & Atlantic. The policy of this road has been to provide the best possible service, the cheapest rates, the quickest time, for the patrons of the road, and in this respect it stands out as an example to judicious management, liberal policy and foresight.

The East & West Railroad of Alabama is another important link and one destined to lead to great developments in the next year in the way of opening available lands,

mineral deposits and timber of inexhaustible quantities. This road is an important feeder to Cartersville's growth and development, and connects with six broad gauge roads—the Western & Atlantic at Cartersville, the East Tennessee, Virginia & Georgia at Rockmart, the Chattanooga, Rome & Columbus at Cedartown, and again the East Tennessee, Virginia & Georgia at Cross Plains, the Anniston & Cincinnati at Duke's Station, and the Georgia Pacific at Pell City. Thus it will be seen that this road is an important factor in the material development of Northern Georgia.

The Cartersville & Gainesville Railroad, now being projected, will traverse a section of unparalleled wealth in the mineral deposits and hardwood forests of Georgia. This road will have as its objective point Decatur, Ala., on the west, connecting with all the systems over it, and Chattanooga, S. C., on the east, thereby affording connections at deep water with the outside world. This road will be an air line to Decatur, passing through Atalla, Gadsden, Rome, Gainesville, Jefferson, Athens, Washington, Augusta, and thence on to Charleston, making almost an air line from the mountains to the coast. The section of country through which this road passes has been described by geologists as one of the richest in minerals in the South, besides running through unbroken forests of the finest timber on the continent. With such railway connections who can doubt the growth of this town?

THE MINERAL DEPOSITS.

In conversation with Mr. R. H. Couper, a well-known student in mineralogy and a gentleman well-known in Northern Georgia, he said to your correspondent in talking of the mineral wealth near Cartersville: "The iron field extends nearly north and south across the county almost unbroken, embracing numerous deposits of great magnitude. The ore is brown and specular ore, the largest proportion being brown ore. This ore runs from 80 to 85 per cent. of metal, varying in percentage of phosphorus and with a few exceptions free from sulphur. The greater part of this ore is admirably suited for making iron, and by selecting the best car-wheel iron can be obtained. The specular ore is found in thick veins of depths unknown, and is of the finest quality; of such texture and grade that the best steel can be made from it."

"The manganese ores lie in juxtaposition to the iron ores, and are found throughout the same belt. Manganese mines were partially developed in this section years ago. The deposits now opened are of extraordinary size, and the outlook is very encouraging. It may be said without the fear of contradiction that this section is one of the richest in the country in manganese. Some of the mines have been worked for 15 years and the products from them shipped abroad. Cartersville is without any doubt the natural center for the manufacture of iron, steel and ferro-manganese. Besides the country nearby abounds in yellow ochre of the best grade. Mounds of large size and dimensions are found within a few miles of the city. Then there are gold, asbestos, barytes and other products which should make Cartersville bloom like a rose."

Mr. A. M. Willingham, a man thoroughly posted as regards the mineral resources and advantages of Cartersville, will be glad to furnish further information in detail upon application. Being an old journalist of reputation, he is well stocked with valuable and correct information, which will be cheerfully and candidly given to those seeking further points regarding Northern Georgia.

FACTS VS. FIGURES.

To show that there exists more truth and facts about this mineral section of

Georgia than has already been told, I quote from the Atlanta Constitution of a recent date regarding the establishment of the Carteravil' Steel & Furnace Co., who propose to erect two furnaces:

"The great industrial movement in steel and its production in the South has received a new impetus by the recent action of a syndicate of wealthy capitalists who have organized themselves into a company, to be called the Cartersville Steel & Furnace Co., with the purpose of erecting at Cartersville a large furnace to cost about \$300,000, the land company at that place having donated a beautiful site for the entire plant, which will also include the erection of a ferro manganese furnace, and an additional sum of \$25,000 in cash. Large contracts for ores and fuel have already been made, which, with the natural advantages offered by the surrounding country, will render their facilities for the economical production of steel at this point as great as any to be obtained in the South.

"The company will go to work at once. Plans have been made, specifications drawn up, and they are now ready for bids. There will be no hesitation, no delays, but everything will go on with the same energy that has already characterized their movements in the past, and before long ground will be broken for an enterprise that will inaugurate a new era in the production of steel, and one that may revolutionize that great industry throughout the world.

"The enterprise will be closely watched with great interest by the progressive iron masters of the South and elsewhere, as the company have contracted with the Pratt Steel Co., of Birmingham, Ala., for the use of their process for dephosphorizing iron in the blast furnace, it being a well known fact that the iron ores near Cartersville, while being very rich in metallic iron, have too large a phosphorus content to allow of their conversion into steel. The Pratt process, however, entirely eliminates that objectionable element, characterized by Carnegie as the 'demon of iron,' and renders the metal treated by this method capable of conversion into steel; in other words, they propose to produce from the highly phosphoretic ores of the South a metal that will class as a high grade Bessemer pig."

To Mr. Stuart T. Martin, vice-president of the Cartersville Steel & Furnace Co., is Cartersville indebted in a great measure for the establishment of this large industry. Mr. Martin is a practical Southern man, and with his capital is doing much for the upbuilding of the South. In many respects possessing the will-power and keen foresight of John Inman, he is demonstrating by a wise and consistent course that to the South must come the capital and energy in the development of the wonderful and inexhaustible resources awaiting those who would not only build wisely but well.

#### LITTLE THINGS IN WHICH CARTERSVILLE HAS BEEN WISE.

She fosters and maintains a retail trade. Farmers nearby grow everything needed on the farm and cease to depend on the commission merchant.

A general diversity in trade and in manufactures.

A proper understanding of sanitary measures.

The establishment of a first-class hotel—the St. James.

Encouragement to capital in all investments.

Making little things pay.

Here then are the essential elements of prosperity, and as Cartersville has started out during the past year in all matters looking to progress and prosperity, there is every reasonable hope that as the years go by she will grow in all those elements of strength which go towards making a city

firm and as durable as the mountains that encircle her nearby.

A very pleasing fact worthy of imitation regarding this place is that there is no boom feature connected with its industrial growth. Steady advancement compatible with the resources and advantages of the place is the lever by which Cartersville hopes to grow and build wisely. On this firm foundation she is as sure to assume an importance worthy the intelligence, mind, muscle and capital at her back as certain as that the tide ebbs and flows daily.

HINTON HELPER.

#### Newsy Notes from Mississippi.

[Special correspondence MANUFACTURERS' RECORD.]

ABERDEEN, Miss., Sept. 15, 1888.

The bagging question is still the all absorbing topic with our farmers, and the determination to escape the exactions of the jute trust is becoming universal. Of course there is no means of entirely avoiding the use of jute bagging this season, but still many thousands of bales will find their way to market wrapped in cotton, and farmers living within wagon haul of factories have in numerous instances arranged to have the proprietors to take their cotton at the market price in any kind of wrapping or packing that will facilitate delivery and handling.

The cotton mills of New Orleans and Mississippi are as rapidly as possible preparing to supply a cotton bagging that will meet all of the insurance and transportation requirements, and sample lots are being sent to all of the market towns for the inspection of the planters and local cotton buyers, and there is no doubt but that a very considerable amount of the new fabric will be used on the present crop, while it will compete successfully with jute bagging everywhere next season, and it is to be hoped drive it out of the field, thus accomplishing the double purpose of supplying an improved wrapping and at the same time creating a new and extensive market for low grades of the great staple.

The taxes in Yazoo county for 1888, including State, county and school, amount to \$11 on the \$1,000 of assessed values. The taxes of this county have been steadily reduced ever since 1875, and it does not owe a dollar, and it is advancing rapidly in wealth and population.

The total outstanding debt of Alcorn county is but \$10,728, all of which is provided for by the present tax levy.

The city of Aberdeen has gotten out for distribution, in the interest of immigration, a pamphlet of 32 pages devoted to a description of that city and of the county of Monroe, and their claims and resources. It contains engravings of many of the leading buildings in Aberdeen. 10,000 copies have been published.

Col. J. C. Clark, general manager of the Mobile & Ohio Railroad, left Corinth last week to traverse the line of survey made from that city to Birmingham, Ala. It is believed that if the report is favorable work will commence on the proposed branch at an early day.

Dr. Powers and R. G. Hudson, Esq., of Yazoo county, are making investigations in regard to the raisin industry in the vicinity of Fresno, Cal.

The wagon factory at Durant, in Holmes county, is shipping wagons to Texas.

The shipments of lumber from Pascagoula, on our south coast, by sea, for the week ending September 13, were as follows:

To Greenock, Scotland.....	8,356
" Havana, Cuba.....	62,709
" Vera Cruz, Mexico.....	137,051
" Buenos Ayres, South America.....	569,845

Total for week..... 1,157,934

In addition to the above, 6,436 white oak staves were shipped to Greenock, Scotland, and 50,000 cypress shingles to New Orleans.

The W. T. Adams Foundry & Machine Co., at Corinth, report their business for August as the heaviest they have ever had.

The new assessment of property in the city of Meridian amounts to \$4,528,700, against \$2,700,000 in 1887, an increase in twelve months of \$1,828,700. This does not include the capital of the local banks, which was taxed last year, but is exempt from local taxation now by act of Legislature that assembled last January.

The Vicksburg Post claims that "the finances of Warren county are in better shape than at any other period since the war."

The town of Oxford, in Lafayette county, which, by the way, gave two Secretaries of the Interior to the United States, Thompson and Lamar, last week voted \$20,000 subscription to the stock of the Memphis, Oxford & Columbus Railroad. This makes \$70,000 for the town and county.

The coffer-dam in the Tombigbee river at Waverly, in Clay county, for the construction of the pivot pier of the Georgia Pacific Railroad bridge, is completed.

The piers for the Georgia Pacific Railroad bridge over the Sunflower river are about ready for the iron superstructure.

This has been an unusually fine fall for sowing turnip seed, and a greater area will be given to that crop in Mississippi this season than ever before.

Corinth, the county seat of Alcorn county will vote on October 1 on the question of subscribing \$40,000 to the capital stock of the Tennessee & Mississippi Rivers Railroad. This road will strike the Tennessee river in the vicinity of the Shiloh battle-ground.

Corinth is to have a steam cotton com press.

The shipments of cotton from Yazoo City for the year ending August 31, 1888, amounted to 43,136 bales, against 27,373 for the preceding year, a difference in favor of the last season's shipments of over \$700,000 in values.

Hinds county had a surplus in her treasury last week of \$32,120 and no outstanding claims against her except her bonded debt.

Mr. C. Cummings, of Jackson, carries on considerable of a boot and shoe factory.

Capt. J. R. Eggleston, of the Raymond neighborhood, in Hinds county, has a vineyard of 1,200 vines, an orchard of 1,500 peach trees, and is planting several acres in strawberries.

It is expected that the counties of Covington, Simpson, Lawrence and Rankin will each vote their bonds to the extent of \$50,000 in aid of the projected Mobile, Jackson & Kansas City Railroad.

The Meridian Candy Factory is one of the most flourishing establishments in that city, and is now doing business with almost every town in Mississippi and Alabama within a radius of a hundred miles.

The recent storms and long continued rains have greatly impaired the crop prospects in many portions of the State, but as the cotton acreage was considerably in excess of last season, and the general average of condition is reported by the Agricultural Department for September as several points in advance of either 1886 or 1887, there is no reason to doubt that the Mississippi yield will be fully equal to that of the last crop—the largest ever made—if the same harvest conditions prevail.

The Ulman Woolen Mills, on our south coast, near Bay St. Louis, long noted for its splendid all-wool blankets and its superior cassimeres and jeans, is doing a splendid business, and finds its chief markets in Mexico and the cities of the East. Mr. Ulman and almost all of his employees are natives of our south coast.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

#### Progress at Spartanburg.

SPARTANBURG, S. C., Sept. 15, 1888.  
Editor Manufacturers' Record:

There is no city or town in the great Piedmont section whose future is brighter and whose prospects just now are finer than those of the "Spartan City," the capital of the "old iron district" of South Carolina. The peculiar (in these days) feature, too, of our progress is the quietness of the movement. This indicates, of course, that the wheels of progress are well lubricated, which makes them run easily, noiselessly, but with greater certainty of accomplishing their work.

As you mentioned in a late issue, the Spartanburg Gas Works, organized here in 1880, have been bought out by a new company, which will replace the present plant with a new one of largely increased capacity. The new company has a capital of \$30,000. Their present improvements will amount to about \$8,000 in laying new mains, etc. They will substitute coal gas for the present gas. A. H. Leftwich is president.

The water works company are now at work making brick for their engine and boiler and pump-houses at the source of their water supply, two miles north of the city. The stand-pipe, the capacity of which is to be 200,000 gallons, will be located within the city limits, on an eminence about 100 feet above the main streets of the city. The capital of this company is between \$40,000 and \$60,000. Their plant will cost, it is estimated, \$45,000. Four or five miles of street mains are to be laid in the city.

The Spartanburg Manufacturing Co. are now having brick made near the site of their new cotton mill in the corporate limits, near the track of the Richmond & Danville Railroad. This new company is organized with \$200,000 capital, and will manufacture brown cotton goods. It is operating under the installment plan in the accumulation of its capital. The mill will be built during the coming winter and spring, and will be ready for work fall of 1889. This mill will give employment to about 250 operatives. Its capacity will in all probability be increased 100 per cent. in a few years. J. H. Montgomery is president, and W. E. Burnett, secretary and treasurer.

The Whitney Manufacturing Co. are now building their cotton mill two miles north of the city, on Lawson's fork, a tributary of Pacolet river. This company's capital is \$150,000, partly paid in. Their mill will be first-class in every respect; will make white cotton goods, and will employ about 200 hands. Dr. C. E. Fleming is president and treasurer.

There are rumors afloat now of the opening up shortly of a large foundry and machine shop, but everything is being done sub rosa it seems, as I can learn nothing definite. Such an enterprise is a necessity here and is certain to be organized soon.

The secretary of the Board of Trade here has been corresponding with a party in Massachusetts (he is not at liberty to give his name at present) who proposes removing his hosiery mill to Spartanburg. This move is now almost a certainty, and only awaits the perfecting of all preliminaries before the machinery will be shipped, and, as very little time is necessary to place such machinery in position, it is confidently hoped the hosiery mill will be in operation before the 1st of January. The capital of this mill will be about \$20,000, and it will employ about 75 hands, mostly females, with an output of 100 dozen pair hose daily.

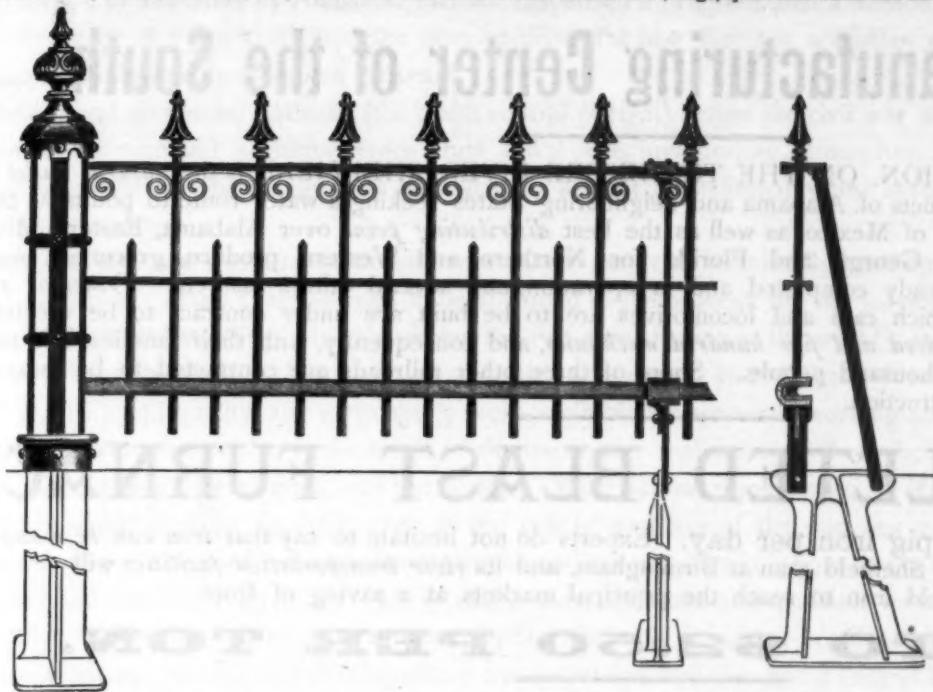
The above enterprises all belong exclusively to the city, and they do not embrace the large improvements in this county of the Enoree Manufacturing Co.'s new mill, being built, with a capital of \$400,000, to begin with; Pacolet Manufacturing Co.'s addition to its capacity, representing \$300,000, and Clifton Manufacturing Co.'s mill No. 2, representing a new investment of \$500,000. Their mill No. 2 will be one of the most complete and handsomest in the whole country. Mr. D. E. Converse, the indefatigable president of this company, deserves the worthy distinction of being at the very forefront of Southern mill men. He is ably seconded by Mr. A. H. Twitchell, secretary and treasurer of the same company.

C. H. CARLISLE.

**Patent Wrought Iron Fence.**

The accompanying cut illustrates a recent improvement in the construction of wrought iron fence, invented by J. E. Bolles & Co., Detroit, Mich. The special feature of this fence consists of the U-shaped bottom rail, a sectional view of

a new primer unscrew the head C until the screw is flush, as at A; start the primer into the pocket of the shell and place the head or flange of shell in the slot B and give the rammer one quarter turn and the screw will force the primer in a straight line to the bottom of the pocket, where it should be to insure certain fire.



PATENT WROUGHT IRON FENCE.

which is shown in the illustration. The pickets pass through both flanges of this rail, and are securely fastened between them (method patented), so as not to be removed, and form an absolutely rigid panel, and one that will never sag. They are manufacturing all styles and sizes of this fence, having recently shipped two car-loads, and are now filling a large order for the city of Natchez, Miss. Any one requiring wrought iron fence can obtain J. E. Bolles & Co's catalogue and prices on application. They are also manufacturers and contractors of building iron work of every description, and make a specialty of wire work, brass work, etc.

**A New Cartridge Implement.**

The Ideal Manufacturing Co., of New Haven, Conn., have just perfected a new and novel implement for loading shot gun cartridge shells. It certainly is a very compact, complete and perfect working combination of instruments arranged in

The screw is a quadruple thread, one-fourth inch pitch; therefore it operates as quick as a lever without its inconvenience. When using as a rammer screw the head C up tight against the rammer; this will draw in the decapping pin and leave the end square, the sleeve or rammer being, as before stated, of such a diameter that the wads are seated squarely on the shot and pressed firmly away out to the walls of the shells. To use for extracting shells when stuck in the gun slip the slot B over head of shell and use rammer as handle. The whole is complete and simple; there is nothing detachable about it, so no parts can be lost. Sportmen who have used it pronounce it perfection. It is evidence of the fact that the Ideal Manufacturing Co. (whose implements are known and appreciated by shooters over the entire world) are up to the times and are wide awake to the demands of the sportsman. Those desiring further information will be furnished illustrated circulars on application to Ideal Manufacturing Co., New Haven, Conn.

etc., where cut lumber or material of any kind has to be moved from one machine to another, or where an elevator is used from one floor to another.

The frame is of hardwood and very strong. The ends are framed and bolted to the side rails. The posts being framed and bolted to the side rails (independent of the ends), can be removed and placed in the body of truck with wheels, axles and casters, forming a complete knock-down truck ready for shipment, taking up a space of only four feet long, two feet wide and eight inches deep. The two large wheels are 16 inches diameter and 2½ inches face, and placed across center of

to lay his work on, instead of laying it on the floor. Parties ordering sample truck, the manufacturers say, invariably order more, as they soon see that it is one of the greatest labor-saving inventions of the day. Prices and circulars will be mailed on application by addressing Radcliff, Rowe & Co., 31 and 33 Plum street, Cincinnati, Ohio.

**The Peerless Truck.**

The accompanying cut correctly represents Radcliff, Rowe & Co's Peerless truck, made expressly for use in saw and planing mills, saw, door and blind factories, furniture and cabinet shops, wagon and carriage, spoke and wheel and car shops, etc.,

**The Empire Drying Bars.**

The Empire drying bars, illustrated herewith, is a most useful and convenient article for every kitchen, laundry or wash-

**EMPIRE DRYING BARS.**

FIG. 1.

room. There is not a day passes that it would not be found handy and useful in any house, or wherever small clothes or towels need to be dried. It requires little space, and folds up against the wall entirely out of the way when not in use.



FIG. 2.

Its capacity is large, having ten arms, each two feet long. The inner ends of these arms or bars are securely attached to a cast iron head piece, which can be moved up or down on the rod, and thus extend or close the arms at will. The whole presents a neat appearance, the arms being finished in oil, the back var-



THE PEERLESS TRUCK.

truck to carry the load. The two casters are 7 inches in diameter and 1½ inches face, and constructed to work easy with a heavy load.

It does not require a man to handle this truck, as a boy can handle it with ease with a heavy load. Any machine hand, it is claimed, can do 25 per cent more work in a day, if you will give him these trucks

finished and the castings galvanized, and this, added to its simplicity and durability, makes the article command a ready sale. Its low price is a great attraction to purchasers, many of whom would not regret paying much more for an article so generally useful in household economy. It is manufactured by the Empire Wringer Co., Auburn, N. Y., who also make the Empire wringers and other house-furnishing specialties.

such a manner that each part can be operated for its specific work without causing any inconvenience from the others so frequently found in combination tools. It is four distinct implements in one, viz: a de-capper, re-capper, rammer and shell extractor, so arranged as not to be any larger than a common rammer. By referring to the illustration the reader can readily understand its operation. To expel the old exploded primer unscrew the head C as far as it will go and slip the rammer D up; this will project the pin at E, the diameter of the rammer being such that it just fills the inside of the shell, thus the de capping pin is conducted to the vent hole without groping. A light blow with the palm of hand on the convexed head will throw out the primer. To seat

THE FORUM for September comes to hand freighted with able articles on timely topics. The contents are: "Causes of Social Discontent," by Bishop F. D. Huntington; "The Republican Platform," by Senator J. C. S. Blackburn; "Progress from Poverty," by Edward Atkinson; "Distrust of Popular Government," by the Marquis of Lorne; "Religion's Gain from Science," by Rev. Dr. T. T. Munger; "Social and Political Mirages," by James Parton; "The Use of High Explosives in War," by Gen. Henry L. Abbott; "Rhetorical Pessimism," by Prof. C. C. Everett; "Uniform Laws for Railways," by Frederic Taylor; "What Shall the Public Schools Teach?" by Prof. H. H. Boyesen; "The Increase of the Alcohol Habit," by Dr. E. C. Spitska.

# SHEFFIELD, ALA.

## The Iron Manufacturing Center of the South.

AT THE HEAD OF NAVIGATION, ON THE TENNESSEE RIVER, SHEFFIELD is the *natural outlet* for the mineral and manufacturing products of Alabama and neighboring States seeking a water route to points on the Ohio and Mississippi rivers, and to the Gulf of Mexico, as well as the best *distributing point* over Alabama, Eastern Mississippi and East Tennessee, South Carolina, Georgia and Florida for Northern and Western produce, groceries, provisions, machinery, &c. Three Railroads already completed and in operation, and several others assured. *Principal shops of Memphis & Charleston Railroad*, in which cars and locomotives are to be built, are under contract to be erected here. These will employ between *four hundred and five hundred mechanics*, and consequently, with their families, will make an increase in population of at least two thousand people. Shops of three other railroads are contracted to be located here, some of them being now under construction.

### FIVE COMPLETED BLAST FURNACES

Have a capacity of 700 tons pig iron per day. Experts do not hesitate to say that *iron can be manufactured more cheaply at Sheffield than at Birmingham, and its river transportation facilities will enable Sheffield iron to reach the principal markets at a saving of from*

**\$2.00 TO \$2.50 PER TON.**

The quality of the iron produced is pronounced by consumers to be the best from any furnace in the South. Stove Works, capacity fifty stoves per day, now in operation. A first-class daily newspaper is regularly issued. Furniture Factory, Bottling Works, Bakery, Dummy Street Railroad, a 50-inch Morse Cotton Compress, Electric Lights, Agricultural Implement Works, 8 Steam Brick Works, 2 Hand Brick Works, 2 Steam Wood-Working Establishments, Water Works, 2 Banks, a Savings Bank, and Steam Job Printing Office already in successful operation, 15-ton Ice Machine just completed and a five-story Hotel, with all modern appliances, now being erected. The Cleveland Hotel, Park House and numerous boarding houses furnish accommodations to travelers; Paint Works nearing completion. Other manufacturing establishments under consideration, among them a large Cotton Mill soon to be commenced.

**Good Water. Free Public Schools and Churches. Drainage Excellent.**  
HEALTH AND CLIMATE UNSURPASSED.

**Splendid Opening for Men of Push and Energy. No Better Point for Profitable Investment. No "OLD FOOL" Element Here.**

**SITES FOR MANUFACTURING ENTERPRISES,  
And for Free Public Schools and Churches**

**Donated by Sheffield Land, Iron & Coal Company.**

Population January 1st, 1887, 700; August 21st, 1887, by actual count, 2,583. Increase of population, 300 per cent. in eight months, and only limited by accommodations. Present estimate (August, 1888) fully 3,500.

Three years ago the site of Sheffield was cultivated as corn and cotton plantations, and was without a railroad. Numerous two and three-story brick business houses, and one and two-story dwellings have been, and are being erected. The class of buildings will compare favorably with those in cities of 20,000 inhabitants.

LIMESTONE of excellent quality for *fluxing iron* in unlimited quantities at the furnaces' sites. First-class building stone and brick clay abundant. Rich and extensive deposits of *brown hematite iron ore* within twenty miles, along the lines of two Sheffield railroads, which, by actual results in the furnaces, yield above 50 per cent. metal. Iron of high grade is being made with a pound of coke to a pound of metal—a result never before accomplished with Southern ores and coke. The Sheffield & Birmingham Railroad runs through the heart of the *Warrior Coal Fields*, which abound in first-class *coking, steam, gas and grate coal*. *Timber* is abundant and cheap.

The *Memphis & Charleston Railroad*, *Sheffield & Birmingham Railroad* and *Nashville, Florence and Sheffield* branch of the *Louisville & Nashville Railroad* are now in operation into Sheffield. Surveys of three other railroads have been recently completed to Sheffield, which will soon be the *best combined river and railroad transportation center* in the South.

Every merchant and every established manufacturing enterprise is doing a profitable business. *More are needed*. For further information address

WM. L. CHAMBERS, Vice-President and Manager,

**SHEFFIELD LAND, IRON & COAL COMPANY, - - - SHEFFIELD, ALA.**

## A RETROSPECT.

THE past year or two have witnessed a wonderful upheaval in the ways, customs and activities of the people of a goodly portion of the State of Alabama. It has chronicled a progress that a decade before had not shown. It was not the discovery of a new truth, nor the development of a new fact, but a sudden and impressive realization of the utility and value of truths and facts known for years.

The mineral section of Alabama (the north central portion) before the civil war was fairly well settled, and had attractions of climate in an even and healthful temperature and a pure, invigorating atmosphere; of fertile valleys and hills adapted to cotton, grain, fruits and pasture, and an abundant and well-distributed water supply that made its inhabitants contented, happy and prosperous.

The great civil war was a revolution in more senses than that historically attributed to it. It brought out elements that changed destinies. Many years seemed to be absorbed in the process, but the leaven of facts was working, and the development was sudden and startling. In this section the two great factors in the world's industrial economy—coal and iron, which had virtually been the basis of England's great wealth and power, and of Pennsylvania's marvellous prosperity—were found in equal quantity and quality, and surprisingly more available for economic working and reduction. The remarkable development in progress in this section is the result of the impressive realization of these facts.

This development seems rapid, and yet is slow. With natural resources equal, if not greater, than those of Pennsylvania and natural advantages far superior, even at the rate of progress of the past few months, it will be decades before we can approximate to her standard. As in Pennsylvania, so here are certain points where a combination of advantages will center the greater industrial developments; where coal is most abundant and available for working and handling; the ores rich and inexhaustible; limestone abundant; a most eligible site with attractive surroundings; an ample water supply; a fertile contiguous territory; abundant and competitive transportation facilities, and a central location. Such a point is

# Bessemer, Ala.

Within a mile of its furnaces the ore is mined and the limestone found in exhaustible beds. Within nine miles, in eight-foot seams, the best of coking coal,—the ore and coal both *mined and delivered at less than one dollar per ton.* Situated in one of the most charming and picturesque sections of the South, on a broad plateau in the famous Jones Valley, twelve miles from Birmingham, midway between Chattanooga and Meridian, Mobile and Nashville, Savannah and Memphis, New Orleans and Louisville, with railroads radiating to each,—seven lines already completed and three others surveyed, two of them under construction.

On the 12th of April, 1887, the first lot was offered and sold in Bessemer. Within a year's time an actual investment or outlay in improvements of over *two million* dollars has been made within its limits, and a population of 3,500 people has located there. Magnificent plants of iron furnaces, iron and steel rolling mills, foundry and machine shops, screw works, planing and drying mills and wood-working factory, fire-brick works, building-brick works, etc., have been erected. Choice business blocks costing from twenty-five thousand to one hundred and twenty-five thousand dollars have been constructed, and nearly four hundred buildings have been completed or are near completion.

Yet Bessemer has not been advertised, for it has grown fully as rapidly as stability of growth and prosperous development would warrant, and it has to its credit a rapidity of growth and development unrivalled in this country.

Bessemer is destined to be a large milling and manufacturing center and prosperous city, for its coal and iron fields are inexhaustible, and its transportation facilities are unexcelled in the South; for nearly all the various manufacturing industries and kinds of business enterprises it affords advantages that cannot be rivalled in this country.

The facts of Bessemer court the most rigid investigation. Facts, not expectations, are suggested to enlist interest and attract attention. In all that may be published under our name concerning Bessemer, the reality and correctness of the statements can be relied upon.

The Bessemer Land and Improvement Co., upon whose property Bessemer is largely built, will promptly furnish information as asked for, and offer substantial inducements in the way of *Sites, Subscriptions, Stock or Loans*, to all industrial enterprises giving remunerative employment to the people.

**Bessemer Land and Improvement Company,**

WM. BERNEY, President. H. M. McNUTT, Secretary.

# ALABAMA'S GREAT MINERAL WEALTH

SURROUNDS THE

## ★ CITY OF TALLADEGA, ★

Which, according to statistics, is the **MOST HEALTHFUL CITY IN ALABAMA**, and the County Seat of Talladega County.

**THE CITY HAS A POPULATION OF 5,000, AND ITS POPULATION IS RAPIDLY INCREASING.**

**T**ALLADEGA is on the main line of the E. T. V. & G. Railroad, the A. & A. Railroad, and is the present terminus of the T. & C. Railroad. Work is rapidly progressing on the Birmingham & Savannah Air Line Road, between Birmingham and Savannah, and within twelve months this road will be completed via Talladega from Birmingham to Savannah, which will place Talladega on the direct line from Birmingham to deep water on the Atlantic, making

**TALLADEGA ONE OF THE BEST DISTRIBUTING POINTS IN THE STATE.**

THE CITY HAS

### AN EXCELLENT SYSTEM OF COMMON GRADED SCHOOLS,

With a scholastic population of 500, and **THE MOST COMMODIOUS AND ATTRACTIVE PUBLIC SCHOOL BUILDING IN THE STATE**. The main building is a three-story brick, slate roof structure, well ventilated, heated by steam; has accommodations and seating capacity for 500 pupils. This school is owned and sustained by the city. All branches of English literature, foreign languages, music, the sciences and art, are taught for a nominal tuition. Among other educational institutions are the following:

**SYNODICAL FEMALE INSTITUTE**, Property valued at \$50,000.

**D. D. & B. INSTITUTE**, Property valued at \$150,000.

**BLIND INSTITUTE**, (in course of construction,) property valued at \$150,000.

**FOSTER COLLEGE**, property valued at \$150,000.

No other city in Alabama has so many educational institutions and so many public buildings.

### ← TALLADEGA HAS THE MOST COMPLETE SYSTEM OF WATER WORKS IN THE STATE. →

The stand pipe has a capacity of 175,000 gallons, and into this reservoir a supply of fresh, clear, pure water is pumped every day from a large spring located in the heart of the city, which discharges over 2,000,000 gallons per day. The gravity pressure from this system is 90 pounds to the square inch in the business portion of the city. The city has broad streets, well macadamized and shaded with beautiful trees, and is well lighted with a **SUPERIOR QUALITY OF GAS**. Sixty fire plugs and forty gas lamps protect against fire and illuminate the streets.

**A LARGE FURNACE PLANT** gives employment to thousands of hands, and makes a high grade of chilled car-wheel iron from ores, limestone and coal within ten minutes haul by rail, or an hour's haul by wagon. **FOUR LARGE LUMBER MILLS**, with an aggregate daily capacity of 200,000 feet of lumber, cut from the long-leaved yellow Pine of this country. **FOUR BRICK YARDS** are in active operation. A **SASH, DOOR and BLIND FACTORY**, a **FOUNDRY, MACHINE SHOP, FLOUR MILL, COTTON-SEED OIL MILL**, and various other industries are in successful operation, and the **TALLADEGA ICE CO.** cools the thrifty population with pure ice at 50 cents per hundred. Another large furnace plant will be completed within the next ten months. A Spoke and Handle Factory and many other industries are projected, with a view to early completion.

Taxable property has increased 100 per cent. within the past twelve months. The rate of taxation is limited in the city charter to half of one per cent., and the city offers an exemption from taxation to all manufacturing enterprises for a period of ten years. The county of Talladega supplies more crude material, in the way of minerals and timber, than any other county in the State. Almost within the corporate limits of the city are extensive deposits of the highest grades of limonite ores, yielding 50 to 58 per cent. metallic iron, with only a trace of phosphorus, and limestone abounds in the greatest abundance. Coal is within twenty miles by rail.

**THE TALLADEGA LAND & IMPROVEMENT CO.** owns 5,000 lots suitable for residences, business and manufacturing, in and adjacent to the city. Lots are donated to manufacturing enterprises, and liberal inducements offered to actual settlers. **SPRING LAKE PARK** is owned by this company, and it is being made the most attractive resort in the State. The lake covers an area of seven acres, and is a beautiful sheet of clear spring water. Parties seeking a healthy climate, free from malaria and epidemics, and a prosperous city, are invited to visit Talladega. Address for maps, etc.

**The Talladega Land & Improvement Co.,**  **Talladega, Ala.**

# DECATUR, ALA.

**POPULATION.**—In March, 1887, 1,200; in July, 1888, 7,000; an increase of over 500 per cent. in sixteen months.

**TRANSPORTATION.**—Thirty navigable rivers will be accessible by steamers from the wharves after the completion of the government works at Mussel Shoals, on the Tennessee river, in 1889. Two trunk lines of railroad are in operation at Decatur—the Louisville & Nashville, and the East Tennessee, Virginia & Georgia systems; and two more are in course of construction.

**MANUFACTORIES.**—There are already in operation, or nearly completed, forty manufacturing enterprises that will employ at least 3,500 skilled workmen. These will warrant a population of 20,000 in the near future.

**HEALTH STATISTICS.**—Death rate last year only 11 per 1,000 among the whites.

**IRON.**—The best grades of charcoal pig iron can be manufactured here at a cost not to exceed \$11.50 per ton.

**COAL.**—Coal for manufacturing purposes is now delivered in Decatur, by rail, for \$1.60 per ton. In a few months the mines up the river will deliver coal for about \$1.25 per ton.

**TIMBER.**—The finest timbers in the world are on the banks of the Tennessee river, adjacent to Decatur. Decatur is one of the largest hard wood producing centers in the South.

**SCHOOLS AND CHURCHES.**—Good school and church facilities are here already.

**FARMING LANDS.**—Decatur is the center of one of the finest agricultural regions in the South. The Tennessee valley produces all kinds of small grain, potatoes and fruits, as well as products characteristic of the South, such as cotton, tobacco, etc.

## Review of Decatur's Growth up to July, 1888.

The following enterprises have been located in Decatur and New Decatur, Ala., since February 1, 1887, (with few exceptions) and are in full operation, except where otherwise stated:

1. The Decatur Land, Improvement and Furnace Company was organized on the 11th day of January, 1887, and has laid out the town adjoining Decatur, known as New Decatur.

2. The Louisville & Nashville Railroad Company are now (July, 1888), completing their extensive new shops for the manufacture and repair of cars and locomotives; also roundhouses, etc., the whole covering 57 acres. It is estimated that these shops will employ 1,500 men.

3. The United States Rolling Stock Company are moving their extensive car shops from Urbana, Ohio, to Decatur, where they are putting up new works, covering 49 acres, for the manufacture of every description of cars. The machinery will be in place by September, 1888. The company will employ 500 men at first, and eventually 1,000.

4. The Decatur Charcoal & Chemical Works, running 48 ovens of a capacity of 55 cords of wood each, each cord producing two gallons of wood alcohol, 50 bushels of charcoal and 125 pounds of acetate of lime. This plant has a capacity to treat about 50,000 cords of wood per annum.

5. The American Oak Extract Company, the largest plant of the kind in the world, consuming 100 cords of wood daily in the manufacture of tanning extract. The plant is now being increased by one third.

6. A 70-ton Charcoal Iron Furnace, nearly completed and ready for operation, built by Gordon, Strobel & Laureau, of Philadelphia, on the latest improved designs. Cost \$111,000.

7. The Decatur Iron Bridge Construction Company, an immense plant with admirable machinery for building every description of railroad and other iron bridges.

8. The Ivens & Son Machine Company. Building (brick) 280 feet by 100. Manufacture boilers, engines, etc., and do all kinds of foundry work.

9. Cotton Compress (Morse, 90 inch.) built by Steers & Co., of New Orleans. Cost \$75,000, completed. The buildings are of brick and iron with stone foundation and have the largest storage capacity in the South.

10. The Decatur Car Wheel & Manufacturing Company. Capacity, 100 wheels per day at present; will be increased as fast as possible, as the company cannot now supply their orders.

11. Southern Horseshoe Nail Factory. These extensive works are being constructed, and will shortly be in operation.

12. Decatur Waterworks (both direct pressure and Holly system) now being constructed by Howland & Ellis, of Boston, Mass. There will be 38 miles of pipe, of which over one-half are laid already. The water will be turned on about September next, and Decatur will have an unrivaled water supply.

13. Moulthrop & Stevens' mammoth brick yard, occupying over 7 acres and employing 50 men, their steam machinery having a capacity of 75,000 brick per day. There are five other brick yards in Decatur, and brick can be furnished at the present time at from \$5 to \$6 per thousand.

14. H. S. Freeman's lumber mills and lumber yard. Daily capacity of mill 15,000 feet. Handles 2,500,000 shingles yearly, besides laths.

15. Arants Brothers' saw mills and lumber yards. Operate 3 band-saws. Daily capacity of their mills 60,000 feet.

16. Decatur Lumber Company's saw mill, planing mill and dryer. A very large establishment.

17. Berthard & Company's sash, door and blind factory.

18. The Hoosier Mills & Building Company.

19. The Southern Lumber Company. Make sash, doors and blinds.

20. J. D. Jervis & Company's extensive factory for sash, doors, blinds, stairs and hardwood finish.

21. Decatur Builders' Supply Company's lumber yards and planing mills.

22. Decatur Artificial Ice Company; capacity 6 tons daily, to be increased shortly to 15 tons.

23. Decatur Cornice & Roofing Company; manufacture galvanized iron cornices and iron and tin roofing.

24. The Decatur Street Railway, running cars over 3½ miles of track. Will have 2½ miles more completed shortly. Is equipped with new rolling stock.

25. The Decatur Telephone Company, operating over 80 stations.

26. The Decatur Electric Light Co., running 30 arc lights (Brush system).

27. Grant & Company's furniture factory.

28. Decatur Building Association.

29. Buchheit's Bottling Works.

30. Decatur Printing Company.

31. Artificial Stone Works.

32. Decatur Plumbing & Supply Company.

33. Alabama Lumber & Fruit Package Company.

34. Decatur Carriage Company.

35. First National Bank. Paid up capital \$100,000.

36. Exchange Bank of Decatur. Capital \$100,000.

37. One daily and two weekly papers.

38. The new "Tavern" Hotel, in full operation, owned by the Decatur Land Improvement & Furnace Company, delightfully situated on their own grounds, magnificently furnished by the Robert Mitchell Furniture Company of Cincinnati, Ohio, with room accommodations for at least 125 guests. There are five other hotels in Decatur.

39. The Decatur Land, Improvement & Furnace Company's incandescent electric plant, furnishing lights to the "Tavern," also to stores, offices and private dwellings.

A block to contain an opera-house, stores and offices, is now being built by a joint stock company at a cost of \$60,000.

The Louisville & Nashville Railroad Company handle daily in their depot yards 640 cars, 360 going South and 280 North; employ 85 men, and pay out to employees \$6,000 monthly.

The East Tennessee, Virginia & Georgia Railway Company handle in their yards 150 to 200 cars, employ 14 men, and pay out in wages \$720 per month.

In March, 1887, the number of inhabitants in Decatur was 1,200; in March, 1888, 7,000 in Decatur and New Decatur. Since January, 1888, there have been over two hundred houses erected; many of them are substantial brick business houses.

The Decatur Land, Improvement & Furnace Company is offering most favorable terms to parties who will purchase lots for the purpose of building homes.

The capital stock of the company, by retirement of the treasury stock, is reduced to 50,000 shares, or \$5,000,000, of which 45,659½ shares have been issued and are now outstanding. It is largely held as an investment by small holders scattered through different States, very many of whom have also bought property in Decatur, and by persons engaged in business and various occupations in Decatur.

The strong financial condition of the company can best be appreciated by a perusal of its published statements of July 1st, 1888, a copy of which can be obtained from the secretary at New Decatur, Alabama.

For Maps, Illustrated Pamphlets, and Specific Information, address

## The Decatur Land, Improvement & Furnace Company

NEW DECATUR, ALA.

# Anniston

THE CENTER OF  
Iron and Cotton Industry  
AND MINERAL WEALTH.

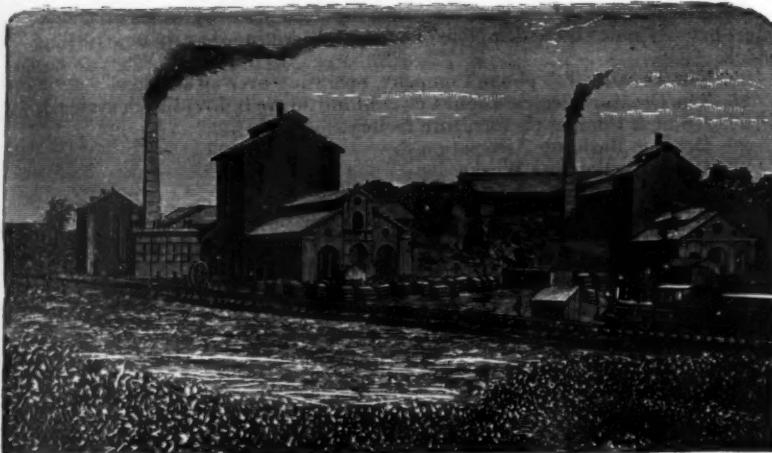
## "The Model City of the South."

### IT IS

The Profits of Labor only that can add to the wealth and prosperity of a nation or community. It is this only that can make business successful and profitable, sustain and add to the value of real estate.

### WHERE

Nature's resources are greatest, where nature's capital in rich agricultural lands, and where iron, coal and other useful minerals are most abundant, most accessible and of superior quality for all purposes, there will capital find its safest investment, largest returns and labor reap its richest reward. It is to the Anniston District where the best professional mining engineers and experts of the United States declare the great center of the Iron Industry of the South will drift, where its manufacture will be most permanent and profitable, and where ores in the greatest abundance and accessibility exist, and where they will be most easily mined, that this applies.



WOODSTOCK FURNACES—ANNISTON.

### The Development of the Past Fifteen Years

Confirms all this, and every year convinces the experts of the correctness of their judgment. It is no longer opinion based on scientific and practical education; it is a fact that is clearly and successfully demonstrated, so that the visitor to the Anniston District can see at every step. The four iron furnaces that have been so long and successfully operated, and the new plant now being erected, and rapidly approaching completion, which will be capable of producing one hundred thousand tons of pig iron a year, demonstrate that

### NOWHERE ELSE IN THE SOUTH

Has the iron industry been so profitable and so successful, or been established on so permanent a basis, and of no district is this so universally conceded by all, while nowhere else have arrangements been perfected and already established on so complete a scale to work the crude iron into higher branches of manufacture to increase its value, and to bring into the district the profits of skilled labor. **THE GREAT CAR WHEEL WORKS OF NOBLE BROS. & CO.**, their rolling mill and steam forge and machine shops, and the Alabama Car Works, have been absorbed by

### UNITED STATES ROLLING STOCK COMPANY

With a capital of \$4,000,000, for the purpose of adding to and enlarging the entire plant to build **TWENTY CARS A DAY**. Everything that goes into the creation of a car, except the tin for the roof and the wire nails, will be created from Anniston's crude material by her labor and skill. Fifty tons of wheel iron will be made into car wheels daily, twenty tons into car axles, fifty tons of pig iron into car and other castings, and fifty tons into bar iron and bolts, making nearly ten thousand dollars per day added to the wealth of the country by profitable labor converting nature's capital to the use of man. This company have a capital of \$4,000,000, and their Anniston works will represent a cash outlay of \$1,000,000. One thousand skilled mechanics will be employed as soon as the great enlargements under way can be completed.

### THE STEEL BLOOMARY

Consumes and increases the value of twenty tons of pig iron per day, while the Pipe Foundry converts to the use of man **TWO HUNDRED TONS OF PIG IRON PER DAY** in one of the largest and best planned and most convenient labor-saving works on this continent. *The Foundry of Murray & Stevenson, Engine and Machine Works of Pinder & Co., and Boiler and Sheet Iron Works of J. & D. Noble*, all add to the consumption of crude material by the creation of finished work.

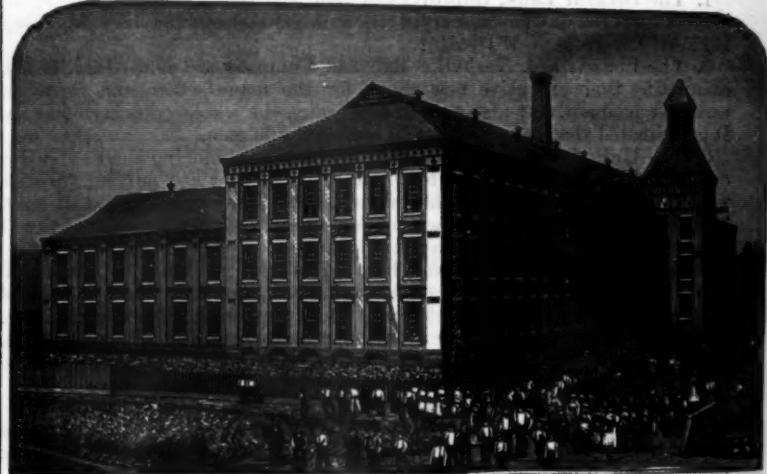
### NOR IS IT TO IRON ALONE

That Anniston relies for increase of wealth and population. The Cotton Factory, with eleven thousand seven hundred spindles and three hundred and seventy-five looms, employing over three hundred and fifty operatives, adds greater value to the products of agriculture by converting six thousand bales of cotton into cotton cloth. The immense ninety-inch Morse Cotton Compress, with its brick warehouses, is fast making Anniston a cotton market and commercial center, and aiding its wholesale and retail merchants to extend and hold the trade of the country tributary to Anniston that its system of railroads has opened to them. The Georgia Pacific, the East Tennessee, Virginia & Georgia Railroad systems,

### Give Direct Communication and Through Rates

To all parts of the country, while the Anniston & Atlantic Railroad, built by Anniston capital to open up new agricultural and mineral resources, gives Anniston, by connection with the Central of Georgia system, communication with the Atlantic sea coast and the new Anniston & Cincinnati Railroad, built and owned by Anniston citizens, opens up new resources and connections, and a shorter line with the great Northwest.

The proposed extension of the Anniston & Atlantic Railroad to Blocton will give another and shorter line to the great Cahaba Mines, producing the very best coal for domestic and manufacturing purposes in the South. Forty thousand acres of these coal lands, upon which a million and a half dollars have been lately spent in opening new mines and building several hundred coke ovens, **ALL OWNED AND CONTROLLED BY ANNISTON CAPITAL**, and developed to mine and manufacture three thousand tons of coal and coke per day, secures to Anniston for generations to come a full and certain supply of cheap fuel for all her industries, operated where a rich agricultural country can feed a manufacturing and commercial people, and where the



ALABAMA MANUFACTURING COMPANY'S COTTON MILL—ANNISTON.

### Best, Healthiest and Most Invigorating Climate in the World,

With mountain air and pure water, and an elevation of nine hundred feet above tide water, insures the health and comfort of the workman and his family; where health and comfort stimulate and lighten labor, and secure to it and its industries the reward due to both. It is these advantages which have been given by nature that enabled Anniston's citizens to create her past and present prosperity, and which secure her future. It is that they may participate in and avail themselves of these advantages that Anniston invites **NEW CAPITAL AND TALENT AND ENERGY** from all sections. We invite all to come and see, and on the spot to judge for themselves of Anniston's great resources and possibilities. The comfort and quiet of the famous Anniston Inn will make a visit to our city a treat and pleasure. Any information, attention and courtesy will be given and shown by addressing or applying to the

ANNISTON CITY LAND CO., Anniston, Ala.

# CONSTRUCTION DEPARTMENT.

**W**E PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

## ALABAMA.

Allen's Factory—Flour Mill.—J. R. Phillips contemplates building a flour mill, as stated last week, but will not begin work for several weeks yet. It is to be run by water-power.

Anniston—Dummy Railroad.—The Anniston, Williamsport & Highland Cave Railroad Co., previously reported as chartered by W. H. Williams and others to build a dummy railroad, have asked for permit to build on certain streets.

Anniston—Nursery.—T. J. Ulbricht, of Montgomery, will erect buildings to be used as a nursery.

Anniston—Sausage Factory.—L. F. Allen contemplates starting a sausage factory.

Anniston—Houses.—J. H. Neilly has received the contract to build 34 houses in West Anniston for Ogden C. Edwards, of Baltimore.

Anniston—Depot, &c.—A terminal company is being organized to complete the union depot and to control the switches of the several railroad companies. \$15,000 will be required to finish the depot.

Atalla—Houses.—Forty houses are reported to be built on the property of the Atalla Iron & Steel Co.

Ball Play—Saw Mill and Tram Road.—Savage Bros. will build the saw mill and tram road previously reported. Machinery for about 25 horse-power mill is wanted.

Bessemer—Reservoir.—The De Bardeleben Coal & Iron Co. will build a reservoir on Sloss's hill. A 5-acre site has been purchased.

Bessemer—Dummy Railroad.—The Bessemer Dummy Line Co. will probably change the route of their railroad extending from Bessemer to Birmingham, so as to shorten it about 2 miles.

Birmingham—Furniture Factory.—The East Birmingham Furniture Co., capital stock \$10,000, has been incorporated to manufacture furniture, wood work, &c., by Florian J. Hubert, T. J. Johnson and William B. Bartow.

Birmingham—Railroad.—The Birmingham Mineral Railroad Co. will hold a meeting on November 12 to increase their capital stock \$3,000,000. It is reported that the extension of their road from Woodstock to Tuscaloosa, 27 miles, is contemplated.

Birmingham—Corrugating Works.—The East Birmingham Corrugating Co. are erecting some new buildings at their works at East Birmingham.

Birmingham—Bolt Works.—H. T. Beggs & Son will, it is stated, add bolt works to their foundry and machine shop.

Birmingham—Church.—The Catholics, through Bishop O'Sullivan, have purchased a site, 100x140 feet, at Fourth avenue and Twenty second street, to build a new church.

Birmingham—Flour Mills.—C. L. Stanford, representing capitalists of Minneapolis, Minn., has been prospecting at Birmingham and other places in the South for a site for a flour mill. The parties contemplate building two flour mills.

Blount County—Gin.—Monroe Whaley has erected a gin.

Centre—Railroad.—A branch of the Rome & Decatur Railroad (office, Rome, Ga.) from near Round Mountain to Centre, 4 miles, is projected.

Centreville—Sugar Mill.—Patrick Cruse has purchased a sugar mill and evaporator. The capacity is about 100 gallons daily.

Childersburg—Depots.—The East Tennessee, Virginia & Georgia Railroad Co. will build depots at Childersburg, Stanton and Marion Junction. At the last named place a depot will be built by the Mobile & Birmingham Railroad also.

Childersburg—Depot.—The Columbus & Western Railroad Co. (office, Columbus, Ga.) will erect a depot.

Eufaula—Brick-yard.—The rumor lately referred to that R. Moulthrop will start a brick-yard is correct. The daily capacity will be 30 M. brick. All machinery will be new.

Faunsdale—Gin.—A gin has been erected by J. H. Minge.

Fort Payne—Lime Works.—The Fort Payne Lime Kiln Association will build a new kiln.

Gadsden—Railroad.—The Gadsden & Atala Railroad will probably be completed to the furnace of the Gadsden Alabama Furnace Co., about 2 miles.

Girard (P. O. Columbus, Ga.)—The building of a cotton factory is again being agitated.

Goodwater—Warehouse.—The Goodwater Warehouse Co., previously reported as to build a warehouse, have let the contract for the wood work to T. J. Wheeler and W. H. Gilliland.

Greenville—Brick-yard.—Parties contemplate starting a brick-yard. M. Park can probably give information.

Greenville—Bucket Factory.—The Greenville Red Cedar & Furniture Co., lately reported as to enlarge their factory, will double their capacity. They will probably increase their capital stock.

Hollins—Shingle Mill and Charcoal Works.—The Sample Lumber Co. have erected a shingle mill, and will build charcoal ovens.

Hollins—Brick-yard.—A brick-yard will probably be started.

Jacksonville—Ochre Mine.—J. A. Gaboury is making arrangements to develop a red ochre mine.

Kimulga—Saw Mill.—William Baker & Son are thinking of adding planer and matcher to their saw mill.

Montgomery—Hotel.—Efforts are being made to raise \$50,000 capital towards building the winter hotel lately mentioned. A site is about secured. W. T. Chandler can give information.

Old Spring Hill—Saw Mill and Woodworking Factory.—J. S. Ryall contemplates erecting a 50 horse-power saw mill and wood-working machinery.

Oxford—Fertilizer Factory.—There is talk of a fertilizer factory being started by the Farmers' Alliance.

Selma—Hotel.—A company with a capital of \$100,000 has been formed to build a fine large hotel, and are negotiating for a suitable site. They may purchase an old hotel and extensively improve it.

Sheffield—Cotton Mill.—New York parties have made a proposition to build a 10,000-spindle cotton mill. The Sheffield Land, Iron & Coal Co. can give information when anything definite is done.

Spring Garden—Iron Mining.—F. W. Formby and David Stewart have commenced developing an iron mine.

Summerville—Stave and Barrel Factory.—A stave and barrel factory is being erected. Sylacauga—Depot.—The Columbus & Western Railroad Co. (office, Columbus, Ga.) will build a depot.

Talladega—Gold Mine.—Machinery is being erected at the Little California gold mine, 18 miles from Talladega.

Talladega—Gold Mines.—The May Virginia Gold Mining Co. are erecting machinery at their gold mines near Talladega, previously reported.

Talladega—Sash and Blind Factory.—C. Wallis will erect a sash and blind factory. He will soon want machinery.

Tuscaloosa—Fire-brick, Tile and Pottery Works.—H. H. Cribbs, lately mentioned as contemplating starting fire-brick, tile and pottery works, is preparing to build the works.

Tuscaloosa—Furniture.—The company reported last week as being formed to manufacture furniture will only start a furniture store.

Uniontown—Railroad.—The Uniontown, Newbern & Dayton Railroad Co., previously reported as chartered, have made surveys for their road, which will be 52 miles long. J. C. Welch is interested.

Whistler—Machine Works.—The Mobile & Ohio Railroad Co. (office, Mobile) have re-established their machine shops, removed some time ago.

## ARKANSAS.

Beebe—Railroad.—The Kansas City, Arkansas & New Orleans Railroad Co. are advertising for proposals for the grading, masonry, trestling, &c., of the Arkansas Division from Beebe to Monroe, La., 200 miles, with a branch to Pine Bluff, 53 miles.

Fordyce—School.—\$5,000 has been raised to build a school. The mayor can probably give information.

Fort Smith—Temple.—The Masons have awarded the contract for building their temple, previously reported. It will cost \$14,900.

Harrison—Carriage and Wagon Factory.—A carriage and wagon factory has been erected by Bower & Sons.

Helena—Warehouse.—D. H. Crebs is building a large brick warehouse for cotton storage.

Helena—Incline and Transfer.—The Louisville, New Orleans & Texas Railroad Co. (office, Memphis, Tenn.) are making surveys for an incline and transfer.

Hot Springs—Canning Factory.—Mr. Deez has purchased a site to start a canning factory next year.

Hot Springs—Hospital.—The Sisters of Mercy have secured a site for the erection of a hospital.

Little Rock—Ice Factory.—L. W. Cherry is president, and W. F. Williamson, secretary and treasurer, of the Little Rock Ice Co., lately reported as formed to build a 30-ton ice factory. The capital stock is \$31,000.

Little Rock—Pottery.—J. W. Vestal, reported last week as starting the manufacture of pottery, will, if successful, add the manufacture of other wares.

Little Rock—Car Coupler.—H. D. Layman and others have formed the Layman Automatic Car Coupler Co.

Little Rock—Chair Factory.—The Little Rock Chair Co. have increased their capital stock from \$5,000 to \$20,000 to build a larger factory, previously reported as contemplated. The new factory will be three stories, 60x300 feet.

Little Rock—Church.—Calvin Sanders is making efforts to lease a certain site on Nineteenth street for a site for a church.

Pine Bluff—Church.—Charles J. Fischer has contracted to build an addition to the Catholic Church to cost \$5,000.

Princeton—Railroad.—The Pine Bluff & Arkadelphia Railroad Co. have surveyed their road as far as Princeton.

Reyburn—Soap Factory.—Arrangements are being made to start a soap factory.

Smithdale—Gin.—A gin will be erected by the Avery Gin Co., of Memphis, Tenn.

## FLORIDA.

Marysville—Wood-working Factory.—Frank W. Hall has, it is stated, purchased machinery to start a wood-working factory.

Seffner—Broom Factory.—Mr. Stafford has moved his broom factory to Seffner.

## GEORGIA.

Athens—Ice Factory.—J. H. Rucker will erect an ice factory, and is negotiating for machinery. He will have it in operation by next summer.

Athens—Planing Mill.—N. J. Cruger is thinking of starting a planing mill.

Athens—Stand-pipe.—The Athens Water Co. speak of increasing the height of their stand-pipe.

Atlanta—Soap Factory.—P. H. Lawshea, 16 E. Alabama street, contemplates starting a soap factory, and wants the address of manufacturers of such machinery.

Augusta—Brewery.—The name of the \$50,000 stock company previously reported as formed to build a brewery and as purchasing a site, by E. W. Herman, of Louisville, Ky., and others, is the Augusta Brewing Co.

Augusta—Bridge.—The city will build a new bridge across the Savannah river to replace the one destroyed by a flood last week. The cost will be about \$100,000. Particulars can be had from the mayor.

Augusta—Canal.—The Augusta canal has been damaged by a flood, and a large sum will be required to improve it. The mayor can probably give particulars.

Bainbridge—Railroad.—The Alabama Midland Railroad Co. (office, Montgomery, Ala.) lately mentioned as placing the bonds for the building of their road from Montgomery to the Savannah, Florida & Western Railroad at Bainbridge, will commence work at the Bainbridge end first. The company will hold meetings on October 13 and 16 to increase their capital stock, &c. Rails for the entire road are reported as contracted for.

Bremen—Iron Furnace.—It is reported that J. D. Williamson, of Rome, and others have organized a company to build an iron furnace.

Buena Vista—Cotton and Woolen Factory, &c.—The Lummus Cotton Gin & Cotton Manufacturing Co. has been chartered. The company will, it is stated, convert their ginnery into a factory for manufacturing cotton and woolen goods, furniture, paper, &c.

Cartersville—Dynamite Factory.—Clark Robinson, of Pittsburgh, Pa., has erected a dynamite factory and has it in operation.

Cedartown—Hotel.—All the money for building the hotel previously reported has been subscribed. It will cost \$15,000. Miller A. Wright can give information.

Cedartown—Planing Mill and Wood-working Factory.—C. Philipot, lately mentioned as to erect a planing mill and sash, door and blind factory, has consolidated with the Cedartown Lumber Co. The company will double the capacity of their planing mill and add the sash, door and blind factory.

Cedartown—Water Works.—L. J. Wagener, of Rome, reported last week as negotiating to build water works, is now preparing his plans.

## MANUFACTURERS' RECORD.

Cedartown—Railroad.—The Ore Belt Railroad Co., reported last week as to probably operate their road with dummy engines, have commenced grading. The road will extend to Cave Spring. The capital stock is \$200,000. Bonds will be issued.

Collier—Ginnery.—B. F. Wilson has erected a ginnery.

Columbus—Engine-house and Machine Shop.—The Columbus Railroad Co. will erect an engine-house and machine shop. A site has been granted by the council.

Columbus—Railroad.—It is reported that the Columbus & Rome Railroad Co. will extend their road from Columbus to Newton, 20 miles.

Columbus—Marble Works.—The Monumental Steam Marble Works are putting in gang saws.

Columbus—Sash and Blind Factory.—Harvey & Dudley will add a finishing room to their sash and blind factory.

Conyers—Oil Mill, &c.—The Conyers Oil & Fertilizer Co. will put some new machinery in their works.

Dahlonega—Mineral Lands.—S. T. Pomeroy, previously reported as investigating mineral lands, will not develop.

Dalton—Ice Factory.—W. T. Goodnow, of Nashville, Tenn., contemplates erecting an ice factory of about 10 tons capacity.

Dalton—Warehouse.—The Crown Cotton Mills will build a large warehouse.

Due West—Chair Factory.—W. J. Goodwin has started the manufacture of chairs.

Fish—Saw and Planing Mill.—Thomas J. Cowan will erect a saw and planing mill, and wants estimates on machinery.

Fort Valley—Planing Mill.—S. F. Dasher has built a planing mill.

Gainesville—Gold Mine.—The Atlantic Mining & Construction Co. have erected a 10-stamp mill at the Cape gold mine.

Graysville—Mineral Lands.—It is stated that the Graysville Lime Co. will develop coal and iron lands.

Hamlet—Lime Works.—The Atlanta Lime & Cement Co., of Atlanta, are erecting the lime works near Hamlet reported last week.

Hamlet—Ore Washers.—The Georgia Mining & Furnace Co., of Cedartown, are erecting the ore washers at the new ore mine of F. M. Randall, reported last week.

Kennesaw—Barrel Factory.—T. J. Hardage & Co., lately mentioned as starting a slack barrel factory, are manufacturing hoops, and will add machinery for manufacturing staves and headings.

Kingston—Flour Mill.—Gaines & Lewis have lately remodeled their flour mill to the roller system at a cost of \$6,000. The mill will have a capacity of 75 barrels per diem.

La Fayette—Iron Mine and Railroad.—The Chattooga Ore Co. are building a railroad at their iron ore mines near La Fayette. They will soon begin shipping ore. Their output at first will be 125 tons daily.

La Grange—Ginnery.—C. C. Jones has erected a ginnery in Troup county.

Lime Branch—Iron Mines.—Dupoister & Taliaferro have leased the iron ore beds of Mrs. Wray and will develop.

Macon—Knitting Factory.—The Macon Knitting Co. have lately put in 20 additional machines.

Macon—Dormitory.—The Georgia State Blind Academy, W. D. Williams, president, contemplates erecting a dormitory to cost \$20,000.

Macon—Hotel, Theatre, &c.—The Macon Dummy Line Co. will build a hotel, theatre, natatorium, &c., at Crump Park.

Parker's Store—Cotton Factory.—The Shoal Creek Manufacturing Co. are adding about 500 spindles and other machinery to their cotton mill.

Pine Log—Saw Mill.—Bell & Whitworth will move their saw mill to near Pine Log.

Rockmart—Slate Quarries, &c.—John B. Gordon, Henry W. Grady and others, of Atlanta; John H. Inman, Samuel Thomas and others, of New York, reported last week as forming a company to develop slate, marble and ochre lands, have incorporated the Rockmart Co., capital stock \$4,000,000, to develop the lands and build a manufacturing town. They have purchased about 10,000 acres of land, including about four-fifths of Rockmart.

Rome—Bagging Factory.—Several parties have been talking of starting a factory for manufacturing jute bagging. When anything definite is done the Rome Land Co. can probably give information.

Rome—Railroad.—The Rome & Decatur Railroad Co. will probably extend their road from Printup City into Rome, about 2 miles.

Rome—Scale Works.—The Standard Scale Co. will add to their works one mortiser and boxer, one power bolt cutter and one planer 24x24 inches; also a 50-light incandescent dynamo. They want to purchase the machinery.

Sandersville—Bottling Works.—Bottling works are to be started, and machinery is reported as contracted for.

Shellman—Church.—The Baptists contemplate building a new church.

Tallapoosa—Furniture Factory.—A furniture factory is projected.

Tallapoosa—Mining Plant.—The Camille Gold Mining Co. contemplate increasing the capacity of the machinery at their gold mine near Tallapoosa.

Trion Factory—Cotton Factory.—The Trion Manufacturing Co., lately reported as contemplating doubling the capacity of their cotton mill, will increase their capital stock for that purpose.

Villa Rica—Ginnery.—S. E. Leathers has put new engine and boiler in ginnery.

## KENTUCKY.

Ashland—Church.—P. H. Suddith has been awarded the contract to erect the church for the Presbyterians previously mentioned.

Barbourville—Stave Factory.—The Bauer Cooperage Co., of Lawrenceburg, Ind., contemplate starting the stave factory previously mentioned.

Covington—Railroad.—The Covington & Ludlow Railroad Co. will soon begin building their railroad.

Covington—Ice Factory, &c.—R. W. Dugan, C. D. Winfield and Charles Shinkle have chartered the Crystal Ice Co., capital stock \$25,000, to erect an ice factory and cold storage warehouse.

Dover—Grist Mill.—John S. Wilson is building a grist and feed mill.

Greenup—Spoke Factory.—C. J. Peters is making efforts to have a spoke factory started.

Henderson—Railroad.—The Henderson State Line Railroad Co. has been organized to build a railroad from Henderson to Bowling Green, with S. K. Sneed as president; John H. Barnett, Jr., vice president, and Starling Marshall, secretary and treasurer.

Hopkinsville—Tobacco Factory.—W. E. Ragsdale and James T. Rice will erect the tobacco factory lately mentioned. The efforts to organize a stock company were not successful.

Louisville—Malleable Iron Works.—The name of the company reported last week as being organized by W. B. Forsman and Matt O'Doherty to establish works for making malleable or soft steel castings is the Forsman Malleable Iron & Cast Steel Co. The capital stock is \$30,000. They will soon erect a foundry.

Louisville—Street Railroad.—The Clifton & Reservoir Park Railroad Co. will extend their road if permit can be secured.

Louisville—Bridges.—The Newport News & Mississippi Valley Railroad Co. are spending several hundred thousand dollars

in rebuilding or reconstructing the bridges along their road.

Louisville—Building.—It is reported that Casper Felock contemplates erecting a large building at Spring and Vincennes streets next spring, and has contracted for bricks.

Louisville—Brick.—Proposals for furnishing 400 M hard brick will be received until September 24 by the Louisville Southern Railroad Co., John Macleod, chief engineer.

Madisonville—Coal Mine.—The Providence Mining Co. have commenced shipping coal from their mine.

Mayfield—Tramway.—Parties contemplate building a tramway 6 miles long, and want information as to cost, &c. Address P. O. box 190.

Mount Savage—Coal Mines.—The Lexington & Carter County Mining Co. have, it is stated, increased the capacity of their coal mine.

Mt. Sterling—School.—James A. Bassell has prepared plans for the school building previously reported. It is to be of brick, two stories, 75x90 feet, and will cost about \$9,000.

Newport—Iron and Steel Works.—The Newport Aluminum & Cast Steel Co., capital stock \$150,000, has been incorporated to manufacture iron, steel, &c., by Adam Wagner, William Speigel, Charles L. Hartsfeld, H. Gunkel and others.

Newroe—Distillery.—John W. Durham has started a brandy distillery.

Owensboro—Church.—The Cumberland Presbyterian Church will issue \$5,000 of bonds to complete their edifice.

Owensboro—Wheel Factory.—The Owensboro Wheel Co., lately mentioned, will not put any machinery at present.

Paducah—Railroad.—The Chesapeake, Ohio & Southwestern Railroad Co. (office, Louisville) have completed surveys for the extension of their road from Paducah to Cairo, Ill., 32 miles. Work will probably soon be commenced.

Pineville—Buildings.—The Pineville Real Estate & Improvement Co., capital stock \$10,000, has been organized with Frank Marimon as president and manager. They are building two houses.

Pineville—Stone Lands.—The Pine Mountain Coal & Iron Co. are investigating the deposits of stone on their land.

Richmond—Water Works.—The Richmond Water Works Co. will receive proposals for constructing their works, previously reported, until October 13. Address F. H. Adair, secretary.

## LOUISIANA.

Ascension Parish—Sugar-house.—J. Libermuth has put new boilers in his sugar-house.

Haynesville—Saw Mill.—Winn & McEachem will add a planer and matcher to their saw mill next January.

Houma—Sugar Refinery.—Improvements are being made at the lower Terrebonne Sugar Refinery.

Iberia Parish—Sugar-house.—Messrs. Delgado & Co., of New Orleans, have put four new boilers in their sugar-house.

New Orleans—Iron Works.—The Reynolds Iron Works, lately reported as enlarging their works, have enlarged their molding room and contemplate enlarging their other departments.

New Orleans—Tramway.—The Hermitage Planting & Manufacturing Co. will build a tramway on their plantation and have purchased rails and ties. Work will be commenced soon.

New Orleans—Oil Mill.—The Union Oil Co. have, it is stated, lately put in some new machinery.

New Orleans—Bagging Factory.—The Maginnis Mills, who are building a large additional cotton mill, as previously reported, will probably start the manufacture of cotton bagging.

New Orleans—Buildings.—Bids for erecting 6 buildings and two wharves on the Mississippi river near Cubits Gap will be received by C. P. Wilkinson, president board of health.

New Orleans—Furniture Factory, &c.—The New Orleans Coffin & Furniture Manufacturing Co. will hold a meeting on October 8 to increase their capital stock.

New Orleans—Molasses Works.—Bryan & Myles are improving their molasses works.

Plaquemine—Shingle Mill.—The Plaquemine Lumber & Improvement Co. has been organized with Pearl Wright as president; Albert Baldwin, treasurer, and G. G. Knowlton, general manager. They will start a cypress shingle mill at Indian Village.

Rapides Parish—Gin.—J. F. Davis has erected a gin.

Rapides Parish—Saw Mill.—P. B. Compton has lately erected a saw mill.

Rapides Parish—Saw and Shingle Mill.—E. O. Weem & Co., have, it is reported, lately built a saw and shingle mill.

St. Charles Parish—Sugar-house.—H. A. Le Sassier is putting new boilers in his sugar-house.

Tangipahoa—Brick Works and Saw Mill.—M. S. Newsom Sons are purchasing machinery to improve their brick works and saw mill.

Terrebonne Parish—Sugar Mill.—John Calder & Co. have erected lately a three-roller sugar mill on their Ridgeland plantation.

West Baton Rouge Parish—Sugar Mill.—T. J. Thompson has improved his sugar mill.

## MARYLAND.

Baltimore—Public Improvements.—The city will decide by a popular vote on November 6 whether or not to issue \$5,000,000 of bonds for public improvements.

Baltimore—Button Factory.—The Alms Button Co. will put steam engine and boiler in factory at 200 West Baltimore street.

Baltimore—Buildings.—William A. Rode will erect 5 two-story buildings on Luzerne street and J. H. Pfister, 6 two-story brick buildings on Cannon street.

Belair—Bank.—The Second National Bank of Belair has been organized and will erect a building. The capital stock is \$60,000 and J. T. C. Hopkins is president.

Frederick—Hotel.—Plans and specifications are being prepared for a large hotel to be built on the present site of the Carlie House. L. McMurray can give information.

Harford County—Canning Factory.—William M. Emmart & Co. have erected a canning factory at Asbestos Ridge.

Owing's Mills—Flour Mills.—Benjamin F. Groff has refitted his flour mill with roller machinery.

Washington, D. C.—The Domestic Fire Engine & Pump Co. will increase their capital stock. They do not manufacture their goods.

Washington, D. C.—Electric Light Plant.—The United States Electric Lighting Co. will add machinery to their plant for incandescent lighting.

Washington, D. C.—Electrical Railroad.—The Georgetown & Tenallytown Railroad Co., previously reported as to build an electrical street railroad, have organized with Gen. Drum as president, and John Beall, treasurer.

Washington, D. C.—Railroad.—The Rock Creek Railway Co. have received permit to begin grading for their railroad.

Washington, D. C.—Schools.—The contract for erecting the school building on I street and the school building on R street, previously mentioned, has been let to J. H. Howlett. They will cost \$24,000 each.

Washington, D. C.—Buildings.—Joseph S. Boss will erect 5 brick dwellings on Brewers court to cost \$3,000; Thomas Potee, a two-story brick buildings on Q

street and two similar buildings on Virginia avenue and Frederick Jones, 2 dwellings on Twenty-fifth street to cost \$5,000. W. Downey will spend \$6,000 in repairing his carriage house on L street, N. W.

## MISSISSIPPI.

Booneville—Planing Mill, &c.—B. W. Bryant is adding planing machinery to his saw mill. He will probably add a box factory next year.

Brookhaven—Shingle Mill.—James E. Adams, lately mentioned as starting a shingle mill, has been manufacturing for some years. He has replaced his hand-feed machines with power-feed machines.

Chesterville—Gin.—D. Jones Austin has erected a gin.

Kosciusko—Saw Mill.—A saw mill has been started by J. A. Fletcher & Son.

Meridian—Market-house.—G. M. Torgerson is preparing plans for the market-house previously reported as to be built.

Meridian—Cotton Compress.—C. A. Leroy, E. Watkins, John M. Richardson, J. T. Broach and others have organized the City Compress Co., capital stock \$40,000.

Muldrow Station—Ice Factory.—H. L. Muldrow contemplates erecting an ice factory.

Vicksburg—Ice Factory.—C. C. Flowerree has contracted for machinery to increase the daily capacity of his ice factory from 15 to 30 tons.

Water Valley—Canning Factory.—The Water Valley Ice Manufacturing Co., reported last week as to manufacture soda water in connection with their ice factory, will operate a canning factory also.

## NORTH CAROLINA.

Asheville—Electrical Railroad.—The Asheville Street Railroad Co., previously reported as to build an electrical street railroad, have ordered machinery for the power plant; also iron ties, &c. W. F. Penniman is president of the company.

Asheville—Lands.—Prof. Tiernan has organized a department for the development of the mineral, timber and agricultural lands of Western North Carolina.

Asheville—Sewerage System.—Bids for building the sewerage system, for which \$100,000 of bonds have been issued, as previously reported, will shortly be wanted by the mayor.

Charlotte—Saddle and Harness Factory.—C. V. Bostic & Co. will enlarge their saddle and harness factory just purchased by them. They have also purchased and will operate a furniture factory.

Charlotte—Furniture Factory.—Elliott & Marsh are building an addition to their furniture factory. A new 35 horse-power engine and 50 horse power boiler are being put in.

Concord—Gas Works.—Gas works are reported to be built. If true the mayor can give information.

Durham—Bobbin and Shuttle Mill.—J. L. Watkins and R. H. Wright have purchased the Durham Wooden and Woolen Mills and will add some machinery. They will be known as the Durham Bobbin & Shuttle Co.

Durham—Cotton Factory.—It is reported that A. M. Riggle, Thomas Riggle, Hugh Markham, Frederick Geer and others will build a cotton factory.

Durham—Cotton Factory.—Another cotton factory is contemplated and will probably soon be started.

Durham—Telephone.—A telephone exchange will be established.

Elizabeth City—Church.—The Baptists will build a brick church.

Fulton—Church.—W. L. Harbin has contracted to build a church for the Methodists.

Greensboro—Bank.—The National Bank of Greensboro have purchased a site, 300 feet, to erect a granite front bank building.

Greensboro—Tobacco Factory.—J. L. Scott will erect a three-story leaf tobacco factory, 40x80 feet.

Greensboro—Tobacco Factory.—M. C. Patterson will erect a leaf tobacco factory, three stories, 40x100 feet.

Greensboro—Prize-houses and Tobacco Factories.—The Greensboro Land & Improvement Co., capital stock \$100,000, has been organized to build prize-houses and tobacco factories. R. R. King is president; W. E. Bevill, vice-president, and W. R. Murray, secretary and treasurer.

Haw River—Cotton Mill.—The Falls of Neuse Manufacturing Co. are reported as to have added 1,440 spindles and 11 looms.

Hickory—Tannery.—Geitner Bros. reported last week as to double the capacity of their tannery, have added a three-story currying shop, enabling them to finish all their leather.

Montgomery County—Gold Mine.—Operations are reported to be resumed at the Genesee Mine.

New Berne—Railroad.—The Ossoway Lumber Co. will build a railroad from their mill to New Berne.

Raleigh—Cotton Factory.—The building of a cotton factory is again being considered. When anything is done the secretary Chamber of Commerce and Industry can give information.

Salem—Veneer Factory.—The Salem Iron Works are starting a veneer factory and want catalogues and price-lists of all kinds of machinery for manufacturing veneer.

Sanford—Chair Factory.—The additional machinery lately mentioned as to be put in the sash, door and blind factory of J. B. Makepeace will be for manufacturing chairs.

Statesville—Electric Light Plant.—The city will decide by a popular vote on October 8 whether or not to issue \$8,000 of bonds to erect the electric light plant reported last week.

Statesville—Sash, Door and Blind Factory.—D. A. Morrison & Co. have started a sash, door and blind factory.

Swansborough—Shad Factory.—W. D. Harrison contemplates starting a shad factory.

Union County—Gold Mine.—Arrangements are being made for opening and prospecting the Ray, Stuart and Fox Hill mines. A plant of machinery is reported as being erected.

Wilmington—Bagging Factory.—The Acme Manufacturing Co., manufacturers of paper, &c., will put in machinery by next year to extensively manufacture bagging from pine fibre for baling cotton.

Wilmington—Gas Works.—The Wilmington Gas Co. have made some improvements to their works.

Wilson's Mills—Cotton Factory.—A cotton factory is reported to be built. If true J. A. Wilson can probably give information

## SOUTH CAROLINA.

Anderson—Hotel.—The Anderson Hotel Co. will receive proposals until September 25 for building their hotel, previously reported. It is to be four stories, 115x100 feet, and will cost about \$40,000. Address chairman building committee.

Camden—Schools.—The Orpheus Society will issue \$10,000 of bonds to build school-houses.

Charleston—Steamship Line.—A \$500,000 stock company is being organized to establish a steamship line between Baltimore, Md., and Charleston. The secretary chamber of commerce can give information.

Charleston—Electric Light Plant.—The Charleston Light & Power Co., reported last week as to enlarge their plant, will do so before next spring.

Chester—Depot.—The Charleston, Cincinnati & Chicago Railroad Co. (office, Rock Hill) will soon build a depot.

Columbia—Cottages.—The Congaree Manufacturing Co., who are building a cotton factory, as previously mentioned, will, it is said, erect a large number of houses.

Darlington—Saw Mill.—J. B. Law contemplates starting a saw mill within six months.

Florence—Bridge.—The Atlantic Coast Line (office, Wilmington, N. C.) will soon begin work on the bridge across the Little Pee Dee river for their Wilson extension, previously reported.

Kingtree—Lumber Mill.—Brunson & Thorne are putting additional machinery in their Black River Lumber Mill.

Vance—Bridge.—One of the piers at the Santee river bridge, owned by the Eutawville Railroad Co. (office, Eutawville,) has been destroyed by a flood and will have to be rebuilt.

Winnabow—Church.—Proposals for building the St. John's Episcopal Church will be received until October 1 by Dubose Egerton.

## TENNESSEE.

Athens—Planing Mill.—S. M. Burkett will, it is stated, start a planing mill.

Big Creek Gap—Railroad.—The Big Creek Gap Railroad Co. has been chartered by J. Stoddard Johnson, of Lexington, Ky.; George T. Berry, Wm. E. Bradley, John Jennings and B. R. Hutchcraft, to build the railroad from Caryville via Big Creek Gap to Cumberland Gap, Tenn., reported last week. It will be 40 miles long. Surveys will soon be made.

Bristol—Railroad.—The contract to complete the South Atlantic & Ohio Railroad from its present terminus to Big Stone Gap, Va., about 25 miles, will shortly be let. W. F. Gordon is chief engineer.

Chattanooga—Electrical Works.—Dorsey, Paine & Co. will rebuild their electrical works, reported in this issue as burned.

Chattanooga—Water Works.—The City Water Co. will at once add four more filters to their filtering plant.

Chattanooga—Building.—J. E. Line will, it is reported, erect a large building on Market street.

Clarksville—Railroad.—It is reported that the Louisville & Nashville Railroad Co. (office, Louisville, Ky.) will extend their road from Clarksville to Dickson at a cost of \$275,000.

Dickson.—The Home Building, Loan & Savings Association has been chartered.

Dyersburg—Water Works.—Frank Shepard is building the water works previously reported.

Elizabethhton—Railroad.—A subscription of \$50,000 has been voted to the Bristol & South Atlantic Railroad. Work will be commenced within 60 days.

Evensville—Tannery.—E. N. Gannaway will start a tannery and wants to purchase machinery.

Graysville—Coke Ovens.—It is reported that the Fox Coal & Coke Co. will soon build a number of coke ovens.

Greeneville—Electric Light Plant.—The Greeneville Electric Light Co., reported last week as chartered, will erect a plant at once.

Helenwood—Coal Mine.—It is reported that the Eureka Coal Co. are increasing the output from their mines.

Knoxville.—The object of the Southern Land & Improvement Co., reported last week as chartered by George W. Ross and others, is the development and sale of mineral properties in Tennessee and North Carolina.

Knoxville—Street Railroad.—W. H. Roberts, W. Boright, M. O. French, James Comfort and others have chartered the East Knoxville Street Railway Co. It is said that they will begin building at once.

Milan—Church.—The Methodists will build a new church.

Mossy Creek—Filter Factory.—Bayless & Dunn will start the manufacture of water filters.

Nashville—Planing Mill.—John B. King will build a new planing mill to cost several thousand dollars and has purchased a site.

Nashville—Printing.—The Nashville Democrat will put a latest improved Hoe press in their printing office.

Nashville—Boiler house.—The contract to erect the boiler-house at the water works, lately mentioned, has been awarded to George Moore at \$3,638.

Nashville—Railroad.—The Nashville, Chattanooga & St. Louis Railroad Co. will issue \$10,000,000 of bonds for the extension of their road and the purchase of new roads.

Nashville—Engine-house.—Proposals for erecting the engine-house at the water works station, lately mentioned, will be received until September 25 by J. A. Jewett, city engineer.

Poplar Creek—Coal Mines.—Joseph Brown, of Atlanta, Ga., is not interested in the coal mines reported last week as being developed.

Rogersville—Marble Mill.—W. S. Kenner & Co. will, it is stated, erect a marble mill.

Rogersville—Saw Mill.—W. S. Kenner has purchased machinery for two saw mills to be erected in Virginia.

South Pittsburg—Hoe and Tool Factory.—The Sequatchie Hoe & Tool Co. have, it is reported, put additional machinery in their works.

Trenton—Foundry and Machine Shop.—J. I. Wells & Sons, reported last week as to rebuild their burned foundry and machine shop either at Trenton or some place nearby, will erect temporary shops to be used until a location is definitely decided on.

Trenton—Marble-yard.—Rainey & Talley have started a marble-yard.

## TEXAS.

Abilene—Wheel Factory.—W. J. Miller is negotiating to build a large wheel factory to employ several hundred hands.

Abilene—Woolen Mill.—A party from Boston, Mass., is prospecting with a view to building a woolen mill to cost \$150,000 for the manufacture of cashmeres, blankets, jeans, &c. A bonus is being raised to secure the erection of the mill.

Austin—Railroad.—The San Antonio & Aransas Pass Railroad Co. (office, San Antonio) have commenced grading for the extension of their road to Austin, previously reported. Mr. Nelson is chief engineer.

Beeville—Mill and Gin.—Buchell & Co., of Cuero, have erected a mill and cotton gin.

Brenham—Oil Wells.—W. F. Messinger, of Oil City, Pa., is examining the oil wells and oil lands near Brenham for Waco partners.

Bryan—Tramway.—It is reported that J. D. Thomas will build a tramway.

Coleman—Railroad.—The Gulf, Colorado & Santa Fe Railroad Co. (office, Galveston) will change their road so as to intersect their San Angelo branch 6 miles west of Coleman.

Colorado City—Railroad.—The Gulf, Colorado City & Santa Fe Railroad Co. (office, Galveston) will, it is stated, soon begin building their branch road from Colorado City to Ballinger.

Dallas—Oil Mill and Bagging Factory.—The Farmers' Alliance Oil Co., capital stock \$25,000, has been chartered to start a cotton-seed oil mill and bagging factory by E. B. Warren, of Dallas; S. D. A. Duncan, of Bryan; B. F. Rogers, of Palestine; E. C. Towne, of Cleburne, and others.

Dallas—Cotton and Woolen Mill.—The Dallas Cotton & Woolen Mills, who are building a large cotton mill as previously reported, will increase their capital stock or issue \$125,000 of bonds to complete their mill. The capacity is 10,000 spindles and 200 looms.

## MANUFACTURERS' RECORD.

Dallas—Bridge.—The contract to build the iron bridge at Dawdy's ferry, lately mentioned, has been let to L. S. Leversedge at \$11,615. He will commence work at once.

Dallas—Electrical Railroad.—It is rumored that the Dallas Street Railroad Co. will run their cars by electricity, power to be furnished by the Dallas Electric Light & Power Co.

Eagle Pass—Coal Mine.—The Coahuila Coal Co. are opening a coal mine.

El Paso—Irrigation.—The Rio Grande Valley Irrigation Co., previously reported, have asked for a franchise.

Ennis—Flour Mill.—A flour mill is reported to be built.

Fort Worth—Fair.—The Texas Colored State Fair Association, capital stock \$50,000, has been chartered by William McDonald, of Marshall, and others.

Fort Worth.—The Mutual Savings & Loan Association, capital stock \$200,000, has been organized with J. M. Spencer and others as directors.

Galveston—Dredging.—O. H. Ernst, major of engineers, will receive proposals until October 10 for improving Buffalo Bayou by dredging and removing stumps and sunken logs from the bed and overhanging trees from the banks.

Galveston—Shore Protection.—Proposals for protecting the southern shore of Aransas Pass by covering it with a layer of stone, will be received until October 10 by O. H. Ernst, major of engineers. 18,000 cubic yards of stone will be required.

Greenville—Water Works and Electric Light Plant.—The name of the company reported last week as organized with J. M. Cook as president, to build water works to cost \$55,000 and an electric plant of 35 arc lights capacity, is the Greenville Water & Electric Light Co. The capital stock is \$100,000. Work will be commenced shortly.

Jefferson.—A \$10,000 loan and stock company has been formed with B. F. Sherrill as president.

Kildare—Hotel.—H. J. Duncan will build a hotel, and has let the contract to C. C. Gullaway.

Pueblo—Coal Mines.—It is reported that parties have bought 3,000 acres of coal lands between Pueblo and Trinidad, and will open mines.

Terrell—Electric Light Plant.—Efforts are being made to organize a stock company to erect an electric light plant. The mayor can probably give information.

Timpson—Oil Mill.—T. J. Todd and G. Alford state they will not erect a cotton seed oil mill as lately mentioned.

Trinity—Oil Mill.—The Farmers Alliance contemplates building a cotton-seed oil mill, and are making investigations as to cost.

Victoria—Bridge.—The Southern Pacific Railroad Co. are preparing to commence work on their bridge across the Gaudalope river for the 60-mile extension of their road to Beeville, previously reported.

Whitesborough—Corn Mill and Gin.—Marshall & Bolton have lately erected a corn mill and gin.

Whitesborough—Canning Factory.—Marshall & Bolton are organizing a stock company to start a canning factory.

## VIRGINIA.

Alexandria—Building.—Thomas Scott has been awarded the contract to erect a three-story brick building for St. Mary's Church to cost \$8,000.

Alexandria—Can Factory.—Thomas Claggett and others, previously reported as starting a canning factory, are negotiating for a larger building for their factory with a view to adding the manufacture of cans.

Arlington—Green-house.—D. F. Mocabee has been awarded the contract to erect the green-house at the Arlington Cemetery, lately mentioned, at \$4,184.

Coyner's Springs—Preserving Factory.—The Virginia Preserving Co. have lately started a factory.

Fort Myer—Buildings.—The contract for erecting the double set of officers' quarters, lately mentioned, has been awarded to James E. Law at \$14,584.

Harrisonburg—Tannery.—J. P. Houck is improving his tannery and putting in a 100-horse-power boiler and exhaust fan and engine. He wants to purchase a blower for dry-house.

Halifax C. H.—Cotton Factory.—R. Holt Easley is interested in the company lately mentioned as being formed to start a cotton factory, and wants information as to machinery. The capital stock will be about \$150,000 or \$200,000.

Lexington—Saw Mill.—Arch Lyle has purchased timber lands on the line of the Lynchburg & Durham Railroad, now being built, and will erect a saw mill.

Lexington—Electric Light Plant.—The Richmond Electric Light & Power Co., of Richmond, reported last week as to erect an electric light plant if permit is granted, will organize the Lexington Electric Light & Power Co. to erect the plant.

Lexington—Electric Light Plant.—Childs & MacMurdo, of Richmond, have asked for a permit to erect an electric light plant. If granted they will erect a plant to cost not less than \$10,000.

Lexington—Chair Factory.—Messrs. Stuart and Day, of Pennsylvania, previously reported as securing buildings, &c., to start a chair factory, are now putting in their machinery.

Manchester—Electrical Railroad.—The Manchester Railway & Improvement Co., previously reported as building an electrical street railroad, have issued \$300,000 of bonds.

Manchester—Summer Resort.—The Manchester, Midlothian & Richmond Railroad Co. will, it is stated, spend about \$25,000 in improving the Huguenot Springs and making it a summer resort.

Petersburg—Carriage and Wagon Factory.—R. W. Collier & Co. have purchased the carriage factory of Daniel Dyson and will erect a new building of brick.

Pocohontas—Coal Lands.—French & Blair have sold 800 acres of coal lands in the Flat Top coal fields to G. W. Lamberts. He will develop soon.

Princess Anne C. H.—Park.—The Ocean Park Co. has been chartered.

Pulaski City—House.—The Swansea Land Improvement Co. have sold lots to Lynchburg parties who will build houses. Five will be erected at once.

Richmond—Pedestal.—Proposals for furnishing materials and erecting pedestal to the monument of Gen. R. E. Lee will be received until September 24 at the office of the consulting engineer, 905½ East Main street.

Rocky Mount—Planing, Grist and Flour Mills.—The Rocky Mount Milling & Manufacturing Co. will rebuild their planing and grist mills previously mentioned as burned, and contemplate adding a flour mill.

Round Hill—Railroad.—It is reported that the Richmond & Danville Railroad Co. contemplate extending the Washington, Ohio & Western Railroad from Round Hill to the coal fields of West Virginia.

Staunton—Building.—The contract to erect the building for the Young Men's Christian Association, previously reported, has been awarded to J. E. Tinsley at \$21,000.

Staunton—Church.—Plunkett & Clarke have received the contract to build a brick church for the United Brethren congregation. They have commenced work.

Suffolk—Buildings.—A. S. Eley will erect four store buildings.

Upperville—Church.—L. Lemley, of Stephen's City, has contracted to build a church for the Baptists.

Winchester—Publishing.—The Winchester News Co. has been formed to continue the publication of the News.

## WEST VIRGINIA.

Bluefield—Coal Mines.—Several more coal mines are reported to be opened soon. George Sharny can probably give information.

Charleston—Granite and Marble Works.—The Jacobs Granite & Marble Co., capital stock \$10,000, has been chartered to establish granite and marble works, by L. B. Jacobs, of Charleston; B. F. Jacobs, Samuel Jacobs and others of Wellsburg.

Grafton—Bridge.—The Baltimore & Ohio Railroad Co. (office, Baltimore, Md.) previously reported as to build a new bridge, are making surveys to ascertain the cost, &c.

Hinton—Lumber and Flour Mill.—J. J. Swope and R. H. Maxwell have enlarged their lumber mill and added a flour mill.

Parkersburg—Saw Mill.—The Parkersburg Mill Co. have erected a band saw mill.

St. Albans—Street Railroad.—John Short, of Marietta, Ohio, will, it is stated, build a street railroad.

Wellsburg—Well.—The Riverside Glass Works are considering sinking a gas well.

West Virginia—Coal Mining, &c.—The Bush Run Coal & Coke Co. have been chartered to mine coal, manufacture coke, &c., by J. F. Effinger, W. P. Tames and A. S. Lara, of Staunton, Va.; E. C. Best, Ronceverte, W. Va., and others. The capital stock subscribed is \$20,000. The principal office is to be at Staunton, Va.

West Virginia—Boom, &c.—It is reported that Pennsylvania parties will purchase the Bradford lumber boom on Elk river and spend \$10,000 in improving the river.

Wheeling—Bridges.—The contract for erecting four iron bridges in Ohio county has been let to the Massillon Bridge Co. at \$8,050.01.

Wheeling—Bridges.—The city council have decided to have the bridge lately reported as to be erected across the creek at Main street built of stone instead of iron. The cost will be not less than \$75,000 or \$100,000. A temporary bridge to cost \$5,000 will be put up. The mayor can give information.

## BURNED.

Abbott's Creek, N. C.—The saw mill of S. J. Finch wrecked by a flood.

Altamahaw, N. C.—The saw mill of Geo. Sutton destroyed by a flood.

Buckhannon, W. Va.—The saw mill of F. W. Brown wrecked by a boiler explosion.

Chattanooga, Tenn.—The Chattanooga Brewing Co.'s new brewery damaged by a fire.

Chattanooga, Tenn.—The electrical works of Dorsey, Paine & Co. They will rebuild at once.

Chester, S. C.—The corn mill of Mr. Brown and the mill of Mr. Douglas, on Bull run, destroyed by a flood.

Columbia, S. C.—The mills of A. W. Long and J. W. Lonford, on the Saluda river, 20 miles from Columbia, have been destroyed by a flood.

Culpeoka, Tenn.—The distillery of Andrew Davis, near Culpeoka, damaged by a boiler explosion.

Forest City, Ark.—The mill and gin of Wynne, Dennis & Beck, 10 miles from Forest City; loss \$1,800.

Hockley, Texas.—The mill and gin of J. A. Helfrich, 8 miles from Hockley; loss \$2,500.

Johnsville, Md.—The creamery of H. F. Hooge; loss \$1,000.

Louisville, Ala.—The gin of E. W. Edison destroyed by a flood.

Lufkin, Texas.—The shingle mill of Dorough & Ramsour, 6 miles from Lufkin; loss \$2,500.

Mayfield, Ga.—The mill of William Stevens damaged by a storm.

Ninety Six, S. C.—The mill of W. T. Head destroyed by a flood.

Norfolk, Va.—The varnish factory of Alfred H. Turner; loss \$5,000.

Perry, Ga.—The gin of J. C. Davidson, in Houston county.

Powell, Ark.—The saw mill of Black & Reynolds, near Powell, wrecked by a boiler explosion.

## Will Build an Iron Foundry.

MEMPHIS, TENN., Sept. 8, 1888.

*Editor Manufacturers' Record:*

We expect to erect a foundry, as our business requires it. We put in about \$4,000 of machine tools within the past twelve months, and are doing a general machine shop business in connection with our other business. We purchased a large piece of ground adjoining our factory on which we propose to build a foundry in the near future. W. C. ELLIS & SON.

## Railroad to be Built.

HENDERSON, KY., Sept. 15, 1888.

*Editor Manufacturers' Record:*

The Henderson State Line Railroad Co. has been organized here with S. K. Sned as president; John H. Barret, Jr., vice-president, and S. L. Marshall, secretary, to build a railroad from Henderson through Davies, McClellan, Ohio, Butler and Warren counties to Bowling Green. The company expects to push the enterprise. It will open up an immense agricultural, timber and coal territory and prove paying investment from the start. A. B. SIGHTS.

## To Build Hotel.

PHILADELPHIA, PA., Sept. 15, 1888.

*Editor Manufacturers' Record:*

We are about breaking ground for a hotel at Pocahontas, Va., to be called the Pocahontas Inn. The writer is president of the company. It will contain about 35 rooms, and in architecture will compare favorably with the chain of "inns" located on line of Norfolk & Western and Shenandoah Valley Railroads. It is hoped to have the structure completed and ready for occupancy in the early spring. E. J. COLLINS.

## Enlarging Phosphate Works.

CHARLESTON, S. C., Sept. 14, 1888.

*Editor Manufacturers' Record:*

We are increasing our acid making capacity by adding to our present chambers and building improved furnaces and towers. Are also improving our manipulating machinery. Have built an additional wharf with hoisting arrangements, &c., &c., improved our railroads, &c.

ATLANTIC PHOSPHATE CO.

EUFALIA, ALA., Sept. 14, 1888.

*Editor Manufacturers' Record:*

I will start a brick-yard at Eufaula. Capacity 30,000 bricks per day. Will put in brick machine, engine and boiler, all new.

R. MOULTHROP.

## Knitting Mills.

NEW ORLEANS, LA., Sept. 10, 1888.

*Editor Manufacturers' Record:*

We started the "Crescent City" Knitting Mills on September 1, with about 55 machines. We are occupying three buildings—9, 11 and 13 St. Ferdinand street. We expect, when fully employed, to turn out 250 doz. half-hose per day. Are now making arrangements for spinning and dyeing cotton yarns. HYAMS & LEHMANN.

## MACHINERY WANTED.

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish, send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Blower.—J. P. Houck, Harrisonburg, Va., wants to purchase a small blower for dry house at tannery.

Bridges.—Proposals for building a bridge over Indian creek, and a bridge over Buck creek at Carrollton, Ga., will be received until October 2 by A. Hutchinson.

Bridge.—W. M. C. Hill, Dallas, Texas, will receive proposals until October 6 for building an iron bridge over the west fork of the Trinity river, near Grand Prairie.

Canning machinery is wanted by J. C. Burwell, Brooksville, Fla.

Cotton Machinery.—R. Holt Easley, Halifax C. H., Va., wants information as to machinery for cotton mills.

Dredging.—Sealed proposals in triplicate for dredging in the following rivers and harbors will be received at the U. S. Engineer's office, 810 Nineteenth street, northwest, Washington, D. C., until the 18th of October: 1. Channel at Mt. Vernon, Va. 2. York river, Va. 3. Nominal creek, Va. 4. Breton bay, Md. 5. Patuxent river, Md. For specifications and all information apply to S. T. Abert, U. S. Agent.

Dynamo, &c.—W. E. Sinclair, Ashland, Va., wants to purchase dynamo and lamps.

Ejector.—Brinson & Brinson, Stillmore, Ga., want to purchase an ejector or jet pump with a capacity for raising 3,000 gallons of water 65 feet every hour.

Electric Light Machinery.—The Standard Scale Works, Rome, Ga., want to purchase a 50-light incandescent dynamo.

Engine.—Maxson & Snyder, West Point, Miss., want prices on 10 horse-power portable engine.

Flour Mill Machinery.—The Rocky Mount Milling & Manufacturing Co., Rocky Mount, Va., want information in regard to machinery for flour mills.

Hose Carriage.—E. E. Smith, Austin, Texas, secretary East Austin Fire Co., No. 4, invites proposals for furnishing two-horse hose carriage with capacity for 1,250 feet of hose.

Iron Bridge.—J. W. Hopkins, city engineer, Paducah, Ky., will receive proposals until October 15 for building an iron bridge across Island creek. It is to have two 50-foot spans and a 200-foot span.

Iron Work.—Proposals for furnishing the metal work for completing the construction of the Seahorse Reef Beacon, Cedar Keys, Fla., will be received until October 13 by Walter L. Fisk, captain of engineers, New Orleans, La.

Mortiser and borer, power bolt cutter and a planer, 24x24 inches, are wanted by the Standard Scale Co., Rome, Ga.

Mortiser and Saw.—Hart & Williamson, Asheville, N. C., want to buy a good (power) mortiser and a cut-off saw, second-hand.

Quarrying Machinery.—Estimates on machinery for developing a soapstone quarry are wanted by Smith & Owen, Toccoa, Ga.

Quarrying Stone.—Proposals for quarrying and loading 8,000 cubic yards of sandstone for rubble masonry, will be received by J. Bent & Son, Bessemer, Ala. Quarry must be within 30 miles of Bessemer.

Rope Machinery.—A. Van Hook, Marshall, Texas, solicits correspondence with manufacturers of rope machinery.

Saw Mill Machinery, &c.—Thomas F. Cowan, Fish, Ga., wants estimates on heavy

saw mill, planer, matcher, molder, shafting, pulleys, &c.

Sewerage System.—Bids for building a sewerage system at Asheville, N. C., will shortly be wanted by the mayor. \$100,000 of bonds have been issued for the work.

Soap Machinery.—P. H. Lawshea, 16 E. Alabama street, Atlanta, Ga., wants the address of manufacturers of soap machinery. He will want about \$10,000 of machinery.

Special Planer.—J. W. Adriance, Racine, Wis., wants to communicate with manufacturers of a machine that will plane ends of hardwood perfectly smooth.

Spiral Springs.—T. A. Perry, Norfolk, Va., wants the address of manufacturers of spiral springs.

Steam Heating Apparatus.—Proposals for furnishing steam heating apparatus for the Marine Hospital at Wilmington, N. C., will be received until October 1 by S. D. Brooks, P. A. Surgeon.

Tannery.—E. N. Gannaway, Evensville, Tenn., wants to purchase machinery for a tannery.

Telephone Line.—Morgan's Bazar, Starke, Fla., wants to purchase supplies for a telephone line about 400 yards long.

Tramway.—Information as to cost of tramway 6 miles long is wanted by P. O. Box 190, Mayfield, Ky.

Veneer Machinery.—The Salem Iron Works, Salem, N. C., want catalogues and price-lists of all kinds of machinery for manufacturing veneer.

Water Spouts.—The University of the South, Sewanee, Tenn., wants to purchase water spouts for their new buildings. Address Telfair Hodgson, vice-chancellor.

Water Works.—Proposals for building water works at Richmond, Ky., will be received until October 13 by F. H. Adair, secretary Richmond Water Works Co.

Wood-pulp Machinery.—H. S. E. Morrison, Estillville, Va., wants information in regard to the manufacture of wood-pulp and machinery needed.

## To Erect Terra Cotta Works.

WILMINGTON, N. C., Sept. 10, 1888.

*Editor Manufacturers' Record:*

We will erect terra cotta works.

HANSEN & SMITH.

NEW ORLEANS, LA., Sept. 11, 1888.

*Editor Manufacturers' Record:*

We have enlarged our molding floor, and contemplate enlarging other departments this winter.

REYNOLDS IRON WORKS.

CLEMENT, GA., Sept. 7, 1888.

*Editor Manufacturers' Record:*

I have recently increased my capacity for cement, and contemplate putting up more kilns and additional machinery.

G. H. WARING.

## Street Railroad.

CEDARTOWN, GA., Sept. 10, 1888.

*Editor Manufacturers' Record:*

Our street railroad will certainly be built. I have the franchise on the streets of our town to build it. We are only waiting to get iron, &c., &c. A company is figuring for a dummy line to Cave Springs, and have all stock taken.

T. H. BOOZ.

## Chair Factory.

CHATTANOOGA, TENN., Sept. 11, 1888.

*Editor Manufacturers' Record:*

We are to be interested in a chair factory to be located at Dalton, Ga., or elsewhere, in the vicinity of Chattanooga. Mr. T. M. Brumby, late of the Brumby Chair Co., Marietta, Ga., will have charge of it.

CAMPBELL & CO.

## Postponement of the Augusta Exposition.

A telegram from Mr. J. H. Alexander, the secretary of the Augusta National Exposition, on Tuesday, announced that the Exposition had been postponed for a month, and would open on November 8th and close December 15th. The wisdom of this change is so apparent that it hardly needs commendation. It insures a great success. The heavy rains and the damage to railroads and to the crops, the yellow fever scare, and the Presidential election, would all have conspired to make October an unfavorable month. The delay will prove of great advantage, and in Augusta's genial climate fine weather can be counted upon almost certainly for November and the first half of December. Thousands of Northern people will now attend the Exposition to hundreds that would have gone in October. The MANUFACTURERS' RECORD congratulates the managers upon this wise move.

## Augusta's Exposition.

An Exponent of the South, Its Marvellous Resources and Wonderful Progress.

The Great Benefits Which the Whole South Will Reap from This Exposition.

[Special correspondence MANUFACTURERS' RECORD.]

AUGUSTA, GA., Sept. 17, 1888.

Augusta, Georgia, after the great freshet, still stands out as the Fountain City of the South—a title no less deserving years ago than now. But to-day she has proven to the world that though the natural elements may combine against her in all their fury and force, the heroic element of the people—determination and the strength of character—are the strong fortresses and bulwarks behind which she rallies and in a few days re-asserts herself in all those distinguishing traits of character so like this brave and courageous people of the typical Fountain City of Georgia.

The floods came and the floods swept away, but Augusta is here the self-same progressive, alive and wide-awake city as in years gone by. The freshet has not been without its good results. The city has been washed, cleaned and purified throughout, and will in a few days, after sufficient drying, be presentable in her sanitary Sunday-go-to-meeting clothes, ready and trimmed for the forthcoming National Exposition; and this great event will celebrate

Her growth,  
Her industries,  
Her wealth,  
Her resources,  
Her advantages,

And the prosperous condition of her people.

It will also show to the world at large that the South is yet on the tidal wave of prosperity and advancement, not only in the industrial arts and sciences, but in agricultural methods and other avenues of thrift looking to the betterment of a region favored by nature, but, alas, oftentimes abused by the trickster and the politician. Indeed, this exposition will show what has been done in this State and throughout the South, and will be a living demonstration that industrial improvement is what the nation needs, and politics a curse to a great extent, or rather a stumbling block in the country's industrial march to greater and more splendid achievements.

The exposition will show that—

National prosperity depends upon the material development of the country.

That the States of the Union are stronger and more firmly united by an industrial tie of common brotherhood than ever before.

That the country is gradually growing and achieving much good in those methods and measures looking to a rich, prosperous, progressive and happy Union.

With this nucleus already formed and enlarging, the

AUGUSTA NATIONAL EXPOSITION, the largest and most extensive exposition ever held in the South, will be hailed with no little degree of pleasure and delight.

The building is 960 feet long and occupies 200,000 square feet, and through this long and substantially-built edifice the very best accommodations for exhibitors and visitors are to be had. In fact, it is by far the best equipped exposition building ever erected in the South, and is a monument to the pluck, energy, public spirit and progressive skill of the people of Augusta.

The Augusta National Exposition, which opens November 8th and closes December 15th, will be the most interesting that the South has ever held, and most important in results. The building, which is about completed, is not equalled elsewhere in the South or in the United States for the purposes intended. We might say, further, that it has been pronounced to

## Water Works.

ROME, GA., Sept. 10, 1888.

*Editor Manufacturers' Record:*

I am making plans for water works at Cedartown, Ga.

S. J. WAGNER.

## MANUFACTURERS' RECORD.

be the most thoroughly perfect in its appointments of any building ever used for like purpose; and the important special features which the exposition directors have seen fit to provide promise to add greatly to the interest which the very wonderful exhibits will awaken.

The postponement of the exposition from October to November, as just decided upon, meets with universal approval. It is a wise step that will prove very advantageous, not only to Augusta, but to the whole South.

The engagement of Cappa's Seventh Regiment Band, of New York, the wonderful balloon leaper, the grand pyrotechnic displays and other special attractions, are a guarantee that the great manufacturing center of the South, Augusta, will be filled with visitors during the entire holding of the exposition.

The opening day is Thursday, November 8th, when the exposition will be formally inaugurated, and the grandest, most imposing ceremonies will accompany the presentation of the exhibits to the inspection of the nation, and a chorus of hundreds of voices will add to the opening ceremonies. General Manager J. W. Ryckman, together with the board of directors, have shown great tact in the arrangement of the special features of the exhibition, and too much credit cannot be given Mr. Ryckman and his co laborers for the able and judicious manner in which they have engineered the splendid forthcoming exposition through. His tact, ability and power of concentration in the work before him, bringing order out of chaos, proves him a born manager of expositions in general. Below will be found a table of special features for special days:

From the opening of the exposition until its close special features have been arranged for every day. Cappa's New York Seventh Regiment Band will be in attendance on the exposition, and a number of pyrotechnic displays, such as never before have been seen in the South, will be given.

The exposition will open on November 8th with a grand demonstration.

To show the attractions of the exposition outside of the exhibits, I give the following list of conventions, military displays, &c., as taken from the official programme, but would remind the readers of the MANUFACTURERS' RECORD that the postponement of the opening to November 8th will of course alter all the dates, but the new dates I am not yet able to obtain:

"On October 11 and 12, the Southern Immigration and Development Convention convenes at Judges' Hall, Exposition Building.

October 13 is set aside for Governors' Day, and the governors of the different States and Territories will meet in the Exposition Hall.

October 15, 16 and 17 a grand military encampment, competitive drill, tilts, etc. will be the special features which will occupy the attention of the public as the chief attraction for these dates, and \$4,000 given in prizes.

The Savannah Valley Convention meets October 17 and 18.

October 22 the cotton manufacturers of the South convene.

October 24 is set aside as South Carolina's Day.

On the 25th Tennessee holds the fort.

The veterans of the Confederate and Federal armies will meet in Augusta October 26. Special preparations will be made under the auspices of the Survivors' Association.

October 29th will be known as Georgia Day, and delegations from every town and city in Georgia are expected to be present.

The National Manufacturers hold their convention on the 29th, and the many weighty problems pressing for solution will be discussed.

Tuesday, October 30th, will be Florida's Day.

Wednesday, October 31st, the cotton

planters of the entire South will hold a grand convention.

Tuesday, November 6, will be Everybody's Day, and will be the only place in Augusta where election returns will be received.

North Carolina's Day has been fixed for November 8th.

The Commercial Tourists of the United States will meet together Saturday, November 10th, which day has been given for that great event, and will be known as Drummers' Day.

The National Agricultural Convention will meet on November 12th.

Wednesday, November 14th, the growing State of Alabama will be welcomed by her sister States, and the wonderful progress made by her will be shown to the world, and her resources, which are almost phenomenal, will loom up as one of the prominent features of the exposition."

Special weekly exhibitions will add interest to the exposition.

The pet stock and poultry show, the fruits, flowers and ornamental plants, the dairy products, the horses and mules, cattle, sheep and swine, in addition to a large number of wonderful mechanical, industrial and novelty exhibits, make the entire exposition replete with interest from the day of its opening until its closing hours.

There is no better opportunity to see Augusta, and, in fact, the entire State of Georgia, than during the days of the exposition. Capitalists and investors should come and see for themselves and be assured of the great advantages offered for the investment of money. The home-seeker should also take advantage of the cheap rates offered, and here note how desirable it is to live south of Mason & Dixon's line, see for himself the South's products and productions, and learn how easily it is with pluck and energy in the work of the hour to gain a handsome competency under balmy skies and in a delightful climate.

Augusta proposes in a business-like way to advertise to the world at large by the most completely managed National Exposition ever given in the South all her advantages, both in location, population, trade, finances, educational and social advantages, climate, temperature, &c., and above and beyond all her wonderful position as a manufacturing center—the Lowell of the South—a distinction she justly merits and prides herself upon, as will be seen from the following table of mills now in operation in this growing city of Georgia:

Factories.	Capital.	Spindl s.	L'ms.	H'ds.
Sibley .....	\$1,500,000	35,000	900	850
King .....	1,000,000	30,000	880	600
Enterprise .....	800,000	33,000	950	610
Augusta .....	600,000	28,000	800	610
River side (waste, yarn, batting) .....	200,000	3,500	...	250
Dartmouth .....	100,000	11,000	...	100
Graniteville .....	600,000	24,000	60	500
Vaucluse .....	300,000	10,000	340	150
Langley .....	400,000	13,000	360	350
Algernon .....	100,000	4,000	150	150
Globe .....	50,000	3,500	...	75
Shamrock .....	30,000	2,500	...	35
Richmond .....	60,000	3,000	...	60

Recapitulation. \$5,440,000 200,000 4,980 4,470

Here there is a golden opportunity to see and study the forces at work revolutionizing the South, making her what she, by a natural right, should have been years ago—a manufacturing center where the raw materials are grown.

It is at this forthcoming exposition that it will be possible to see and understand the force of events at work upbuilding the South.

No one desiring to fully acquaint himself with the South, her progress and her people, should let this chance slip by, when the most thorough exhibit of products and industries will be intelligently displayed.

The Augusta National Exposition is the special and practical means by which people, especially capitalists and investors of the North and West, can more thoroughly learn and ascertain the thousand channels now open in the South for judicious and profitable outlay of capital; therefore all who can should come.

It may be put down as an assured fact already that this exposition will be the lever by which thorough and practical information will be given to the world regarding the advantages of Augusta, her relative position as a manufacturing and commercial center, as well as that of the entire South, for every section will be represented. Therefore it should be incumbent upon all who are interested in the development and progress of the South to come early and stay late, for the exposition will be an open book in which all, regardless of place, power or position, age or color, rich or poor, can derive pleasure and profit by studying the industrial achievements which are rapidly enriching the whole South.

HINTON HELPER.

C. R. MAKEPEACE & CO.  
ARCHITECTS and MILL ENGINEERS  
PROVIDENCE, R. I. Plans, Specifications and  
Estimates furnished for Cotton and Woolen Mills.

LOCKWOOD, GREENE & CO.  
MILL  
ENGINEERS,  
NEWBURYPORT, MASS.

PLANS AND SPECIFICATIONS FURNISHED FOR THE CONSTRUCTION, EQUIPMENT AND ORGANIZATION OF COTTON AND WOOLEN MILLS.

### Bids Wanted on Water Works.

Wanted bids on a system of Water Works, to be built at Richmond, Madison Co., Kentucky. Address F. H. ADAIR, Secretary, and copies of drawings and specifications will be forwarded. Bids will be opened in presence of bidders on Saturday, October 13th, 1888

### Correspondence Solicited.

By a party who will open a COMMISSION OFFICE in Providence, about Sept. 15, for the sale of all classes of MACHINERY, including STEAM ENGINES, ELECTRIC DYNAMOS and MOTORS and everything pertaining to the MECHANICAL and ELECTRICAL BUSINESS. Twelve years practical experience. Best of reference furnished. Address, Box 1375, Providence R. I.

### CAPITALISTS AND INVESTORS

are now offered an opportunity to procure a limited amount of stock of one of the best manufacturing plants in the South. A safe and profitable investment that will pay 10 per cent. This stock is offered for sale in order to further a new project of great interest to the plant. This will bear the closest investigation and is a rare opportunity. Address "INVESTMENT," 500 E. Market St., York, Pa.

### YOUNG MAN, GO SOUTH!

Here's a Chance For You!

A live, go-ahead person with some musical experience, or better still a musician, can get an opening in a healthy and prosperous business in the Model City, the most progressive town in the South, \$2,000 to \$3,000 necessary. No retired capitalists or sleepy heads need write; we want a "pusher." Address THE ANNISTON MUSIC & ART HOUSE, Prof. N. E. Solomons, Manager, Anniston, Ala.



ENTIRELY NEW. HOME-LIKE. ELEGANT.

HIGHEST ELEVATION ON HANDSOMEST STREET.

American Plan, \$3.00 to \$4.50 per day.

Telegraph for Rooms at our expense.

C. WARNER STORK, Proprietor.

Subscribe to the MANUFACTURERS' RECORD

### —Receiver's Sale.—

About 3,000 dogwood blocks, got out for staves; seasoned five years and in perfect order; also lot oak and poplar lumber, 59 new boiler tubes, 25 feet by 5½ inches, pair good mules and furniture wagon. Lot tools of various kinds, including portable forge, anvil and vises, circular and band saws. Lot supplies, including furniture hardware, bagging, varnish, etc. etc. Our membership in Chamber of Commerce. Will negotiate for sale of factory with complete machinery for manufacture of furniture or other wood work sufficient to employ sixty hands, with 5½ acres land, favorably situated on Air-Line road, near High-land avenue, with side track, conveniently located for a large business. Apply to

GEO. W. HOPE, Receiver, Atlanta, Ga., 100 Peachtree St., or at factory from 10 to 1 o'clock.

### PLANS, SPECIFICATIONS AND ESTIMATES

will be received by the undersigned until the 10th day of October, 1888, for fitting up a fifty barrel (in 24 hours) Flour Mill, with improved machinery, roller process complete. The building is now completed, and is situated on the railroad track in Lynchburg, Va., 42x100 feet; four stories; basement attached; height 1st story, 9 feet; 2d and 3d, 10 feet; 4th, 11 feet, with Forebay, Penstock and water wheel now completed and in place. All of above machinery to be put in place and at work by January 1, 1889.

W. H. FORD, Lynchburg, Va.

### Oakland Woolen Factory

Situated in Carroll county, Md., in the most healthy part of the State, on the north branch of the Patapsco river, about twenty miles from Baltimore, four miles from the Western Maryland Railroad at Owings Mills, and about the same distance from the Baltimore & Ohio Railroad. Will be sold by PUBLIC AUCTION in the REAL ESTATE EXCHANGE, No. 122 East Fayette street, Baltimore, on WEDNESDAY, OCTOBER 17th, 1888, at one o'clock P. M. The sale is positive to close an estate. The property contains 81 acres of land, more or less, 35 acres under cultivation, the balance in wood, with a never-failing water supply of thirty horse power. Improved by a factory building, with two sets of woolen machinery run by a Leffel Turbine Wheel, Picking House, Stock House, Dry House, Drying Platform and Tenter Bars, Mansion House, with ten rooms, Ten Tenement Houses, Bank, Barn and Stable.

TERMS—\$3,000 in cash, balance in instalments in any reasonable time the purchaser may desire, with interest at 6%.

Any further information desired will be furnished on application to the undersigned.

MATTHEWS & KIRKLAND,  
Auctioneers.

### Cotton and Woolen MACHINERY.

50 Crompton Fancy Cotton Looms, nearly new, 36 inch reed space, for 12 Harnessed, 4 boxes at one end, 1 at the other.

My Store Houses here have over 2 ACRES of floorage, which is covered with good machinery, including nearly full systems for Cotton and Woolen Mills.

JEREMIAH CLARK,  
Lowell, Mass. Office, 108 Middle St.

### BANKERS AND BROKERS.

WILSON, COLSTON & CO.  
Bankers & Brokers,  
216 E. Baltimore Street, Baltimore, Md.

Investment and Miscellaneous Securities a specialty, and large lines handled. Exceptional facilities for dealings in all classes of Southern Bonds. Loans on Collateral Securities negotiated. Quotations and information furnished on application, and correspondence invited.

UNION LOAN AND TRUST COMPANY,  
BOSTON, MASS.

Incorporated 1885.

Capital Stock \$1,000,000.

Authorized by charter to receive, hold and disburse money, securities or property in trust, and act as financial agent for any person, firm or corporation, National, State or Municipal authority.

Special Attention will be given to the Negotiating of Southern Bonds and Mortgages.

This Company has superior facilities for making collections throughout the entire country, having correspondents and agents established at all points. Correspondence invited.



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	Stieff, Chas. M. ....	44
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LIST OF SALES  
OF  
WESTINGHOUSE  
ENGINES  
Compound,  
Standard and Junior,  
FOR THE

MONTH OF AUGUST, 1888.

Alleghany Co. Lt. Co. (16th order), Pittsburgh, Pa.	150 H. P. Cp.
Alleghany Co. Lt. Co. (17th order), Pittsburgh, Pa.	150 " Cp.
Alleghany Co. Lt. Co. (18th order), Pittsburgh, Pa.	150 " Cp.
O & C. H. Railway & B. Co., Cinc. Mills, Ia.	150 " Cp.
Va. Electric Light & Power Co. (3d order), Richmond, Va.	150 " Cp.
Va. Electric Light & Power Co. (4th order), Richmond, Va.	150 " Cp.
Colorado Electric Co. (5th order), Denver, Col.	150 " St.
Col. radio Electric Co. (10th order), Denver, Col.	150 " St.
St. L. & San Francisco Railway Co., Springfield, Mo.	125 " Cp.
Charley Bros., S. Manchester, Ct.	125 " St.
Pittsburgh Ref. Co., Pittsburg, Pa.	125 " St.
O & C. H. Railway & B. Co. (2d order), Council Mills, Ia.	100 " Cp.
Westinghouse Electric Co. (12th order), London, Eng.	100 " Cp.
St. L. & San Francisco Railway Co. (2d order), Springfield, Mo.	100 " Cp.
Gd. Frank Railway Co. (6th order), Montreal, Can.	75 " St.
Gd. Trunk Railway Co. (7th order), Montreal, Can.	75 " St.
Bryden H. Sh. Co., Catawissa, Pa.	75 " St.
Wyatt Park Ry. Co., St. Joseph, Mo.	75 " St.
" " (5d ord.) " " 75 " St.	
Baldwin Loco. Wks. (9), Phila., Pa.	75 " St.
Quaker City Dye Works.	65 " Cp.
M. K. Light & Pow. Co. (4th order), Morristown, N. J.	60 " St.
Norwich Electric Light & Power Co., Norwich, N. Y.	60 " St.
Pescod Iron Works, (4th order), Philadelphia, Pa.	50 " St.
Darlington Ginning & Mill Co., Dar- lington, S. C.	50 " St.
Tate & Sons, Braymer, Me.	50 " St.
Dealer, San Francisco, Cal.	50 " St.
A. B. Barry, (4th ord.), Moscow, Rus.	45 " St.
Forestdale Mf. Co., Providence, R. I.	45 " St.
Nova Scot. Steel Co., N. Glasg., N. S.	35 " St.
St. L. & San Francisco Railway Co. (3d order), Springfield, Mo.	35 " St.
Foster Bros., Atlanta, Ga.	35 " St.
Waverly Stone Co. (ad order), Hol- land, Mich.	35 " St.
Dealer, Dallas, Tex.	35 " St.
J.W. Schadewald & Co., Minn., Min.	35 " St.
Lincoln Iron Wks. (ad), Rutland, Vt.	35 " St.
Anton Scholmeyer, Pine Bluff, Ark.	35 " St.
Cass. & Pres. Mills. (5th), Cumbe- land Mills, Me.	35 " St.
Crown Mills (ad), Middletown, N. Y.	35 " St.
Washington Gas Co., Wash., Ind.	35 " St.
Darlington Ginning & Mill Co. (ad order), Darlington, S. C.	35 " St.
Ada Mfg. Co., Charlotte, N. C.	25 " St.
Panamic Pt. Wks. (ad), Dundee, N. J.	25 " St.
G. H. Nichols & Co. (5th), New York	25 " St.
McArthur Bros. (ad), Danbury, Ct.	25 " St.
Can. Steam Pump Co. (ad), Canton, O.	25 " St.
Burrell Chem. Co., Newberry, Mich.	25 " St.
" " (3d), " " 25 " St.	
Dealer, Dallas, Tex.	25 " St.
Lawrence Machine Co. (35th ord.), Lawrence, Mass.	25 " St.
Bryden Horse Shoe Co. (ad order), Catasauqua, Pa.	25 " St.
Chambers, Turner & Layton, Tru- re, N. S.	25 " St.
R. Mackintosh, Lundy, Utah.	25 " St.
Oil Well Supply Co., Pittsburgh, Pa.	25 " St.
Keating Imp. & Mach Co., Beck- ville, Tex.	25 " St.
Dealer, Dallas, Tex.	25 " St.
Elberton Oil Mill (ad), Elberton, Ga.	25 " St.
Botts Street Furn. Co., Cinc. Ia. O.	20 " St.
American Glucose Co., Peoria, Ill.	20 " St.
" " (ad ord.), " " 20 " St.	
" " (3d), " " 20 " St.	
H. McMoran, Port Huron, Mich.	10 " St.
Westinghouse Electric Co. (13th ord.), Pittsburgh, Pa.	5 " St.
Chambers, Turner & Layton, Tru- re, N. S.	5 " St.
Dealer, San Francisco, Cal.	5 " St.
S. Heth, Gas & W. Co., S. Beth'l'm, Pa.	5 " St.
Perr. R. R. (10th ord.), Camden, N. J.	5 " St.
Lawrence Mach. Shop (56th order), Lawrence, Mass.	5 " St.

SUMMARY.

12 Compound Engines, aggregating 1,440 H. P.  
27 Standard " " 2,590 "  
31 Junior " " 740 "  
Total, 70 Engines, aggregating 3,770 "

Note the Repeated Orders

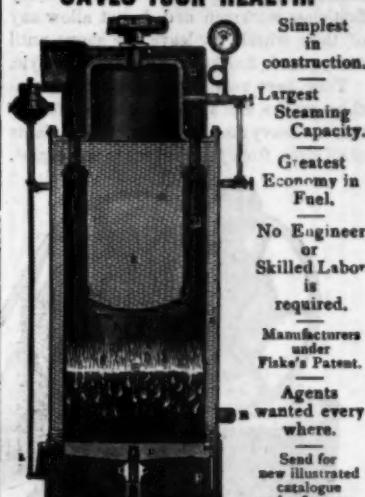
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Note the Distribution of Trade.

Note the Volume of Business,  
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are placed two together on one shaft, as shown in cut, they give great power, claimed to be about four times the power of ordinary wheels. This is a broad assertion, but the manufacturers who make it say they stand ready to back it.

These twin wheels on horizontal shafts are becoming very popular for driving

DAVIS DOUBLE TURBINE WATER WHEEL ON VERTICAL SHAFT.

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These wheels, when placed two on a

cotton mills, paper mills, roller process flouring mills, and, in fact, most of machinery that is driven from horizontal shafting, and can be used to advantage exclusively for driving saw mills and elec-

The manufacturers make this wheel an exclusive specialty and take great pains in building them. They use the very best material in their construction, employ first-class workmen and do not allow any of their wheels to leave the shop until every part is finished in the very best style.

They have very large foundry and machine works, and are well prepared for fitting up heavy machinery for driving plants of all sizes, from the smallest to the largest.

manufacturers who have had them in use. The cut represents Hillard & Goldsmith's latest pattern two beater, with condenser. The use of this machine makes a large saving to manufacturers. The cost of picking spinners waste with it is less than one quarter of a cent per pound, and the product is far better than that of hand-picked waste that costs from three to five cents per pound. Full particulars can be obtained from W. H. Goldsmith, sole agent, Fall River, Mass.

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**Literary Notes.**

THE September Wide Awake opens with an amusing story of the Harrison campaign of 1840. "Jermicky's Sacrifice," by Mrs. Katherine B. Foot, is a story which for genuine fun is seldom equaled. "Two Opportunities," "A Little Lombard Hero," "Ned's Base Ball Club" and "An Abyssinian Monkey" are all excellent. There is a beautiful art article entitled "Summer Lanes," by Miss Mabel Robinson. The article by Rev. H. O. Ladd describing the Ramona Industrial School for Indian girls is particularly fine, and is calculated to excite much interest in the class of people for whom he labors. The serials "Plucky and Pandy" and "Double Roses" keep up to their usual high standard, and taken altogether, we have an unusually good number of this fine magazine. Lothrop Co., publishers, Boston, Mass. \$2.40 a year.

THE September Magazine of American History is filled with substantial papers, Gov. St. Clair's portrait appears as its frontispiece. "Marietta, Ohio, 1788-1858," written by the editor, introduces us to many of those heroic people who figured in the wilderness, and traces the origin and early career of "the old college town." The second article is an informing and scholarly treatise on the "Indian Tribes in Prehistoric Times," by Cyrus Thomas, Ph.D. The third describes "The Declaration of Independence in Georgia," a welcome contribution from the eminent Georgia historian, Col. Charles C. Jones, Jr. Dr. J. Harris Patton's "Reconstruction" is a study of a subject hitherto greatly misunderstood. Then comes an excellent paper on "Canada's Financial and Business Condition," by Dr. Prosper Bender, and the "Relation of the Constitution and the Ordinance of 1787 to Education" is discussed by Lieutenant-Governor Robertson, of Indiana.

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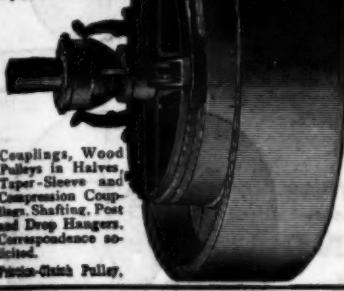
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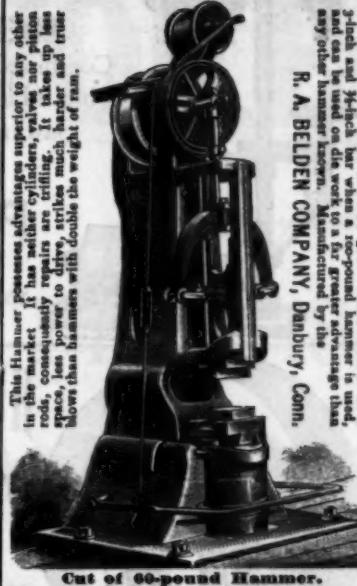
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**ARCTIC ICE MACHINE**

**Manufacturing Co.**

CINCINNATI, OHIO.

OFFICE, 24 PIKES BUILDING.

P. O. Box 348.

OUR OWN SHOPS.  
MACHINES CARRIED IN STOCK  
AND ORDERS  
PROMPTLY EXECUTED.



The Improved Arctic with Curtis Engine.

**HYATT FILTERS.**

The FRANKLIN INSTITUTE, of PHILADELPHIA, have recently awarded "THE SCOTT LEGACY PREMIUM MEDAL" to this Company for the ADAPTABILITY of their SYSTEM to the PURIFICATION of the WATER SUPPLY of CITIES.

We call attention to the fact that over Twenty Cities, the two largest plants at present being in  
**LONG BRANCH, New Jersey, and ATLANTA, Georgia,**  
are having the benefit of pure water by the use of our System. The largest Sugar Refineries, Paper Makers and other Manufactories in all parts of the country have for years used our Filters with great satisfaction and benefit. We have suits against the National Jewell and other companies who infringe our patents.

**HYATT PURE WATER CO.** 16, 18 & 20 CORTLANDT ST.,  
NEW YORK CITY.

**HEISLER SYSTEM  
Long Distance Incandescent Electric Lighting.**

CHEAPEST TO CONSTRUCT AND MAINTAIN.

ZELL & DUNN, General Southern Agents, Contractors for Electrical and Steam Plants, No. 21 Postoffice Avenue, BALTIMORE.

**SAWYER-MAN ELECTRIC CO.**

COMMERCIAL AGENTS OF

**THE CONSOLIDATED ELECTRIC LIGHT COMPANY.**

OWNERS

OF THE

**SAWYER-MAN**

**PATENTS.**



GENERAL OFFICES:  
510 West 23d Street,  
NEW YORK CITY.

BALTIMORE OFFICE:  
No. 217 E. Fayette St.

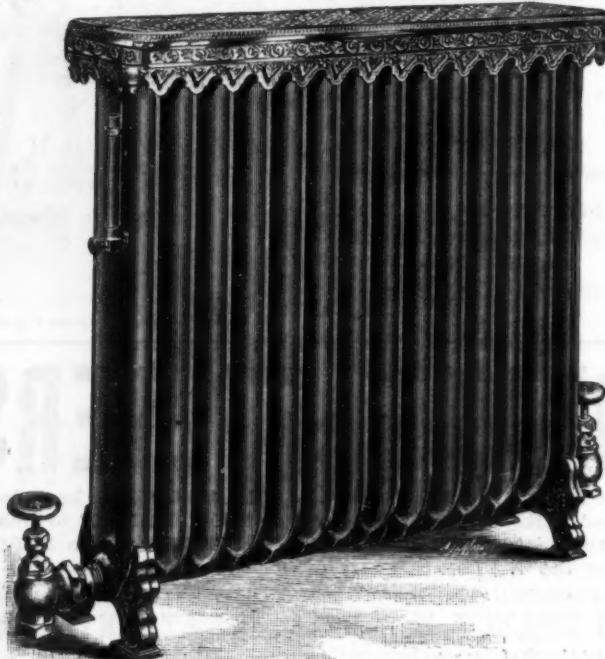
PHILADELPHIA OFFICE:  
No. 308 Walnut Street.

BOSTON OFFICE:  
No. 33 Federal Street.

The DYNAMO of this Company is AUTOMATIC in its regulation, and will maintain a UNIFORM LIGHT, with ALL or ANY PORTION of the lights in Circuit. Our LAMP will not BLACKEN and will MAINTAIN its CANDLE POWER during its Guaranteed life. PLATES and MACHINERY MANUFACTURED for all kinds of Incandescent Lighting. ESTIMATES FURNISHED FOR THE THOMSON-HOUSTON SYSTEM OF ARC LIGHTING.

**The Landis Patent Hot Water Radiator.**

The cut herewith illustrates the Landis patent steam or hot-water radiator for direct or indirect heating. This radiator has now been in successful operation for over two years and is highly recommended; is very neat in appearance, positive in circulation; has no ball to obstruct or prevent a free passage of the air around the loops or catch the dirt and dust; stands free and clear from the floor; is easily gotten around and under for sweeping the floor or carpets, and is extensively used for every class of work public and private, wherever steam warming is applied. The Mount Penn Stove Works, Reading, Pa., the manufacturers, are prepared to fill orders at short notice and at prices consistent with all good radiators on the market. All interested in steam heating, or contemplating the use of steam for heating, should investigate this radiator, as it has many advantages for good work. This radiator is also manufactured by the Johnstown Steel & Iron Casting Co., Johnstown, Pa., where they can be had. For further information about them or rights to manufacture them, address the patentee and owner, Ezra F. Landis, Lancaster Pa.



THE LANDIS HOT WATER RADIATOR.

**Enlarging Guano Works.**

SAVANNAH, GA., Sept. 10, 1888

*Editor Manufacturers' Record.*

We are putting up acid chambers, with 150,000 cubic feet capacity, Glover and Gay-Lucas towers, Spence furnaces to burn pyrites, mill building with all the latest improved machinery to grind bone, phosphate rock, &c., and storage shed 250x150 feet. Our plant will have the capacity of turning out 15,000 or 17,000 tons fertilizer per annum. COMMERCIAL GUANO CO.

**Cotton Compress.**

SOMERVILLE, TENN., Sept. 9, 1888.

*Editor Manufacturers' Record.*

A company has been formed to erect a compress at this place. E. C. Bush is president, and A. J. Rooks, secretary and treasurer. The capital stock is \$25,000. It is the company's intention to combine several enterprises with the general business of compressing. D. C. WOVELL.

CEDARTOWN, GA., Sept. 6, 1888.

*Editor Manufacturers' Record.*

We will build at once a large planing mill; also a sash, door and blind factory here. PHILPOT & CO.

**New York Iron Market.**

Specially reported by WARREN, WOOD & CO., Pig Iron, 215 Broadway.

NEW YORK, Sept. 18, 1888.

The pig iron market has continued strong during the last week, prices ruling very firm. Some of the best brands of Southern iron are held for 50 cents advance. Such furnaces as Citico and Williamson, which are using one third brown and two-thirds red fossil, with Pocahontas coke as fuel, are readily sold from 50 cents to \$1 above the average brand of Southern make. Iron made from a mixture of brown ores are very strong and do not require the use of foreign Scotch. Several sales ranging from 500 to 1,000 tons each have been made of these brands to take the place of the best brands of foreign make. The iron has proven superior in strength, softness and purity. Three of the largest concerns in the East who have always used foreign Scotch have made severe tests and comparison and have adopted Citico or Williamson in their mixture in their stead. We quote No. 1 x \$18 50 to \$19; No. 1 \$17 50 to \$18; No. 2 x \$17 to \$17 50, ex ship at tidewater.

WATER-WHEEL users will find it to their interest to investigate the superior merits of the Hercules wheel, made by the Holyoke Machine Co., of Worcester, Mass. There

**New Bench Drills,**

**EMERY GRINDING MACHINES,**

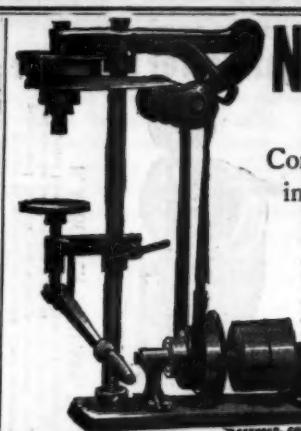
Combined Sawing and Boring and Shaping Machine, Foot and Power Band Sawing Machines, Foot and Hand Power Circular Saws.

**Post & Company,**

MANUFACTURERS,

154 Lake Street, - CHICAGO, ILL.

Write for Price Lists and Discounts.



**Hill Clutch Works,**

Cleveland, O.

HILL

Friction

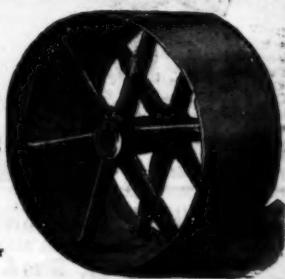
Clutch.

**WALKER MANUFACTURING CO.**

Shafting, Hangers,  
PULLEYS.

PULLEY CASTINGS  
AND MACHINE-MOULDED  
GEARING

A Specialty.  
Cleveland, Ohio.



Estimates furnished. Write for  
Gear and Price-Lists A.

**Shafting, Hangers.**

Castings of every  
Description made.  
Stationary, Distillery  
Mill and Boiler Work.

NO. V MARQUETTE, 118 W. Falls Ave., BALTIMORE, MD.

**CHATTANOOGA FOUNDRY & PIPE WORKS.**

DAVID GILES, Pres. C. B. IDESTER, Vice-Pres. M. LLEWELLYN, Secy. and Treas.  
Successors to B. GILES & CO., (Chattanooga, Tenn., Manufacturers of



Also Castings and Patterns of Every Description made to order.

W. H. WREN, President. H. E. MCWAN, Superintendent. W. D. CAMPBELL, Sec'y and Treas.

**THE GLAMORGAN COMPANY,** Proprietors of

**HILL CITY PIPE WORKS**

Manufacture all kinds of Blast  
Furnace, Coking and Mining Ma-  
chinery; Boilers, Engines, Trans-  
port and Construction Car Castings,  
and Tobacco Machinery, &c.  
Prices on application.

LYNCHBURG, VA.



**PHOSPHOR-BRONZE**  
INGOTS, CASTINGS & MANUFACTURES.

THE PHOSPHOR BRONZE SMELTING CO. LIMITED  
512 ARCH ST. PHILADELPHIA PA. U.S.A.

ORIGINAL MANUFACTURERS OF PHOSPHOR-BRONZE IN THE UNITED STATES AND OWNERS  
OF THE U.S. PATENTS.

Look Carefully through this paper and you may find an advertisement of some machinery or other goods that you are in need of. Preserve this copy for future reference.

# ROANOKE CITY, VA.

POPULATION 1881, 400.

POPULATION 1888, 12,000.

Roanoke City is located in the mountains of Virginia, 1,000 feet above sea level—between the Blue Ridge range on the east and Alleghany range on the west.

It has an elegant Courthouse, Market-House, Opera House, Public School Houses, Firemens' Hall and many other public buildings.

Has a Gas Company with a capital of \$120,000.

Has an Electric Light System, both arc and incandescent—in course of construction.

Has a system of Water Works, the finest in the State, worth \$250,000.

Has 12 churches, representing nearly every denomination.

Has four banks, operating on an aggregated capital of \$450,000.

Is the headquarters of the Norfolk & Western Railroad Company, which employs 300 clerks.

Is the headquarters of the Shenandoah Valley Railroad, which employs 75 clerks.

Is the headquarters of the Pocahontas Coal Company, the largest coal operators in the world.

Is the headquarters of the Virginia Steel Company, which is backed by \$5,000,000 in cash.

Is the headquarters of the Virginia Company, operating on a large capital.

Is the headquarters of the Washington & Western Railroad Company.

Is the headquarters of the Virginia Mineral Railroad Company.

Is the headquarters of the Roanoke & Southern Railroad Company—now under construction.

Has a large wholesale and retail trade, embracing sixteen of the most productive counties in the Old Dominion, and its wholesale trade extends into West Virginia, Tennessee and North Carolina.

Has the most delightful and healthiest climate in the world.

Has, within fifty miles of it, a dozen of the most famous watering places in America.

Has The Crozer Steel & Iron Company, operating on a capital of \$500,000, employing 300 men, and turning out 120 tons of pig iron per day.

Has the Roanoke Machine Works, with a capital of \$1,000,000, and employing 1,000 men.

Has the Roanoke Rolling Mill, with a capital of \$150,000—in course of erection.

Has a Roller Flouring Mill, valued at \$15,000.

Has the Diamond Ice & Refrigerator Company, capital \$25,000.

Four Planing Mills, with a capital of \$25,000.

The railroads and various manufacturing enterprises of Roanoke have monthly pay rolls aggregating \$150,000, all of which is paid to citizens of Roanoke.

Has four hotels capable of accommodating 500 guests; Hotel Roanoke cost \$80,000.

375 houses were erected in Roanoke City during 1887, and at least 800 will be erected during 1888. There are at present 200 buildings under construction.

The bonded debt of Roanoke City is smaller than that of any city in the South of equal size, being less than \$150,000. The city tax rate is \$1.10 on the hundred dollars—lighter than that of any city in the South.

Roanoke City will spend, during 1888, \$16,000 for public school buildings; \$25,000 for sewerage; \$25,000 for streets, and about \$15,000 for miscellaneous public improvements.

An Opera House Company has been chartered and will erect a \$50,000 theatre building.

The Roanoke Street Railway & Transportation Company has been chartered and will construct three miles of street railway.

The Home Building & Conveyance Company has been chartered and are now building and preparing plans for 100 residences.

Has the Roanoke City Mills, capital \$30,000.

Trade of Roanoke has increased 300 per cent. during the past three years.

1,000 miles of railroad now in operation, focus at Roanoke.

Roanoke is 258 miles west of Norfolk, and 150 miles east of Bristol, on the Tennessee line.

The only city of any consequence within 200 miles of Roanoke is the city of Lynchburg, by the James.

Roanoke is the supply depot for a territory embracing 16 counties in Virginia and many of the border counties of West Virginia, Tennessee and North Carolina.

Roanoke is the headquarters of nearly all the mining companies now operating in the Southwest.

Has the largest fruit and vegetable canning factory in the South, with a capacity of 15,000 cans per day.

Has the Roanoke Land & Improvement Company, operating on \$600,000 capital.

Has four Building and Loan Associations, capital \$350,000.

Has the Roanoke River passing along its borders, furnishing unsurpassed water power for manufacturing purposes.

Has more undeveloped mineral wealth within easy reach than any city in the South.

Roanoke will soon be the terminus of two divisions of the Norfolk & Western Railway system, thus adding 1,500 to its population.

Roanoke is building a Masonic Temple to cost \$25,000, and a Y. M. C. A. building to cost \$20,000.

Real estate is from 100 to 200 per cent. cheaper in Roanoke than in any city of promise in the South.

Roanoke will have a population of 25,000 souls when the census of 1890 is taken.

We want men of money and men of muscle.

Has the West End Land Co., operating on a capital of \$40,000, paid up.

# ATHENS, East Tennessee,

THE COMING  
→Iron and Manufacturing City of the South.←

Athens is the county seat of one of the most fertile counties in East Tennessee. The health of the city is unsurpassed, and is **ABSOLUTELY FREE FROM ALL MALARIAL OR EPIDEMIC DISEASES**. The surrounding scenery is very fine. From the main avenue the whole valley of East Tennessee can be seen, from the Cumberland Mountains on the west to the Great Smoky Mountains on the east; some of the tallest peaks east of the Rockies being in full view. **FINE MINERAL SPRINGS** are adjacent and are popular summer resorts. The society of Athens is excellent. A cordial welcome is extended to all law-abiding people locating in the town. The **EDUCATIONAL FACILITIES** are good. Beside public and preparatory schools, Athens is the seat of **THE GRANT MEMORIAL UNIVERSITY**, which has an enrollment of over 300, and whose graduates include some of the most distinguished citizens in the country. Among the industries and institutions of the place in active operation are:

**THE ATHENS BUILDING & LOAN ASSOCIATION, \$250,000.** **THE ATHENS WOOLEN MILLS, \$100,000.**

**THE FIRST NATIONAL BANK, \$50,000.—To be increased at once.**

**FOUNDRY & MACHINE SHOPS, \$25,000.**

**FURNITURE WORKS, \$15,000.**

**FLOURING MILLS, \$20,000, etc.**

500 men are now at work on the new railroad from Athens to the

## RICHEST IRON FIELDS IN THE SOUTH

JUST EAST OF THE TOWN.

Only eight miles from Athens are **VEINS OF RED FOSSILIFEROUS ORE 111 FEET THICK**, and 4 to 12 miles beyond are **THE LARGEST DEPOSITS OF BROWN ORES IN THE SOUTH**. The ores of both varieties, in addition to being inexhaustible, are both superior in quality to any ores of either variety at present mined in the South. An assertion that can be sustained. Coke can now be obtained at the lowest prices, and in addition a new railroad is now projected to the Cumberland Coal Fields, only 22 miles distant. These roads will give Athens **UNSURPASSED SHIPPING FACILITIES**. The road under construction will penetrate large deposits of Tennessee Variegated Marble; also an Unopened Timbered Region, and will develop the

### Largest Colored Slate Deposits in the United States.

These quarries are now being opened, and are pronounced by experts **Absolutely Inexhaustible**, and equal in quality to the finest Vermont Colored Slate.

## The ATHENS MINING & MANUFACTURING CO.

Have alone just contracted for the erection of over

**\$500,000 IN NEW MANUFACTURING ENTERPRISES**

At Athens, including a 100-ton Blast Furnace, cost \$200,000; Cotton Mills, cost \$150,000; Furniture Works, employing 200 men, cost \$100,000; Hotel, cost \$60,000; Water Works, Street Car Lines, &c. These improvements have been commenced which, added to other improvements projected, will add

**\$1,000,000 OF NEW MANUFACTURING ENTERPRISES TO ATHENS.**

The company desire to open correspondence with parties desiring to locate, and will extend liberal inducements in addition to gifts of sites in order to induce New Manufacturing Enterprises to locate in Athens. City property is doubling in value every few months, and at present low prices is beyond question a very fine investment.

## The Athens Mining & Manufacturing Company,

**R. L. BRIGHT, President**

**R. J. FISHER, Secy. and Genl. Manager.**

# ROME, G.A.

**O**F all the growing cities in the growing South, Rome presents the greatest opening for money-making investments. With surrounding fields as rich as the lands of Goshen, with exhaustless deposits of brown and red Iron Ores and Manganese immediately at hand on all sides, with mountains of Marble and Limestone coming right up to the city, with an abundance of the best Coal easy of access, areas of untouched forests, and with seven railroad outlets and two navigable rivers, Rome stands, in natural advantages, pre-eminently above any other proud and pretentious city within the limits of this proud and ambitious commonwealth.

## THE HEALTH OF ROME IS UNSURPASSED.

THE UNUSUALLY LOW DEATH RATE IS A PHENOMENON,  
STANDING WITHOUT A PEER AT 8.40 PER THOUSAND.  
NOT ONE CASE OF CATARRH OR CONSUMPTION EXISTS OR  
EVER ORIGINATED WITHIN HER LIMITS.

Rome has 12,000 inhabitants, has invested in colleges and school buildings about \$300,000; in church building over \$100,000; in her new hotel \$125,000; in the dummy line, just completed, over \$50,000. Her manufactories employ 800 hands, with other enterprises now going up. Her system of water-works and sewerage is unsurpassed. The city is lighted with gas, and negotiations for an electric light plant are now pending. The highways leading to the city are all well macadamized. The Post-office Department has recently made Rome a free postal delivery office. The annual business of the city is about \$12,000,000, with the trade constantly increasing. The yearly range of temperature at Rome, between the average highest and lowest, is about 84 degrees; the mean temperature is 60.6 degrees. About seven months intervene between the first and the last killing frosts of the year. There is no better society to be found anywhere.

The Rome Land Company (J. W. Rounsville, President, T. F. Howell, Treasurer, and J. L. Bass, Secretary and Business Manager) will donate ample grounds to, and otherwise aid, any worthy manufacturing enterprise that may locate here.

Send for circulars and pamphlets.

## HOOPES & TOWNSEND.

MANUFACTURERS



### MACHINE AND CAR BOLTS, KEYSTONE BOILER RIVETS,

MADE IN SOLID DIES.

COLD PUNCHED, CHAMFERED, TRIMMED &  
DRILLED SQUARE & HEXAGON NUTS.

Bridge Rivets,

Split and

Single Keys.

WASHERS,

Tank and Coopers'

RIVETS.

PHILADELPHIA, PA.

ESTABLISHED IN 1865.

## RICHMOND LOCOMOTIVE & MACHINE WORKS

RICHMOND, VA.

BUILDERS OF

## LOCOMOTIVES.

## ENGINES.

12 to 300 Horse-Power.

Standard and Special, 12 to 300 horse-power.  
Gas, Water, Creosoting and other heavy machinery. Catalogues, specifications, photographs and estimates furnished on application.

## BOILERS.

Standard and Narrow-Gauge, for  
every variety of service. Pole  
Road Locomotives and Cars, the only  
successful device of the kind made.

Stationary and Portable

### STEEL RAILS

### PENNSYLVANIA

Standard Sections  
Light Sections  
Street RailsFish Plates,  
Frogs, SwitchesSTEPHEN W. BALDWIN  
SALES AGENT

### STEEL COMPANY

50 to 80 lbs. per yard  
16 " 45 " " "  
30 " 88 " " "Bolts & Nuts,  
and Crossings.NO. 2 WALL STREET  
NEW YORK N.Y.

16 lbs. Full Size.

## BUCYRUS FOUNDRY & MFG. CO.

BUCYRUS, OHIO.

Builders of

### Steam Shovels,

Steam Dredges,

WRECKING CARS.

## DETROIT FOUNDRY EQUIPMENT CO.

DETROIT, MICH.

MANUFACTURING

Whiting's Improved Car-Wheel Foundry Plant, Improved Cupola, Improved Overhead Steam Crane, Improved Car-Wheel Chills, Improved Transfer Trucks, Improved Device for Operating Foundry Ladles, Improved Reversible Friction Gearing.

Steam and Power Cranes Castings of all Descriptions, Ladles, &amp;c.

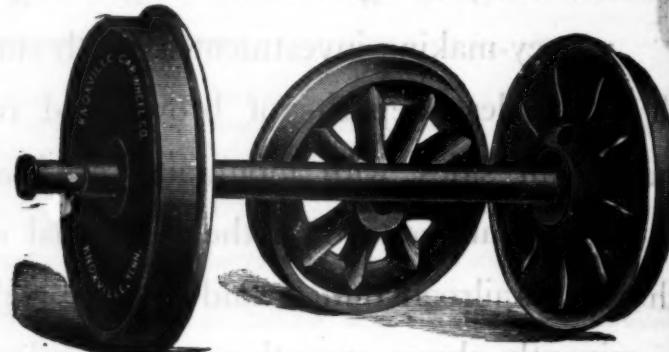
## KNOXVILLE CAR WHEEL CO.

KNOXVILLE, TENN.

Manufacturers of All Kinds of

## CHILLED WHEELS

For Railroads, Street Railroad, Ore and Coal Mines, and Lumbermen.



Steam Hammers,  
Steam Hoists,  
Foundry Cupolas,  
Derricks, Crabs,  
Horse Powers,  
Shieves, Drill Heads,  
Gearing, Pulleys,  
Bolts of all sizes,  
Locomotives and Engines  
Repaired and Indicated.

CORRESPONDENCE SOLICITED.

Steel and Iron Boilers,  
Guild's Automatic  
Boiler Cleaner,  
Car and Locomotive Castings,  
Soft Iron Castings of all kinds.  
Heavy Castings a specialty.  
Wheels mounted on Axles if  
desired, with Oil Boxes  
and Bolts.

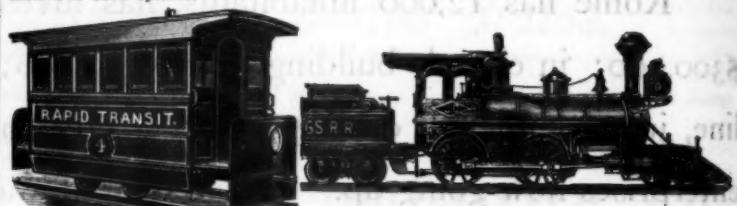
MENTION THIS PAPER.

## H. K. PORTER & CO.

PITTSBURGH, PA.

LIGHT LOCOMOTIVES, all gauges of track, for Passenger and Freight Service, Logging Railroads, Mines, Blast Furnaces, Steel Mills, Coke Ovens, Contractor's Works, Plantations, &amp;c.

NOISELESS STEAM MOTORS, all sizes and patterns, adapted to Steep Grades and Sharp Curves, and Noiseless and Smokeless. Cheaper, more Reliable and Efficient, and Less Objectionable than Electric or Cable Systems.



THESE CUTS CHANGED EACH INSERTION.  
ALL WORK STEEL FITTED and built to duplicate system. EXTRA PARTS kept in Stock.  
MEMORANDUM.—LOCOMOTIVES AND MOTORS of several sizes, wide and narrow  
gauge kept on hand for immediate shipment, or under construction for quick shipment.  
Illustrated Catalogue, Photographs, Prices, &c., on application, mentioning this paper.

JOHN STEPHENSON COMPANY, NEW YORK

TRAMWAY CARS OF EVERY DESCRIPTION  
LIGHT, ELEGANT, DURABLE

Railway, Mining and Furnace Supplies,  
PIG IRON, COAL AND COKE.

G. HERBERT ELLERBE,

SUCCESOR TO  
MINNIGERODE & ELLERBE  
P. O. Box 704

BIRMINGHAM, ALA.

## TRADE NOTES.

THE Rochester Machine Tool Works, Rochester, N. Y., were in attendance on the International Fair, Buffalo, N. Y., with an exhibit of the Acme automatic safety engines and boilers. They report having run all the dairy machinery exhibited there with a three horse-power Acme engine and boiler. This speaks well for the capacity of the Acme.

THE Defiance Paint Works, of Cincinnati, are building up a very large trade in the manufacturing towns of the New South, especially in paints for machinery. Mr. Ferris, the president of the company, is a thorough chemist and closely watches the manufacture of his brand of goods. He reports a large demand for black asphaltum varnish and Japan drier for the iron trade, and says the sales of 1888 were exceptionally good, doubling those of the previous year.

THE Reliance Oil & Grease Co., of Cleveland, Ohio, continue to report a large increase in the volume of their trade for the month past, and say that they are receiving great encouragement in their purpose to place upon the market grades of lubricants in liquid and solid form of only the very best qualities. "Chelsea" scale solvent, their famous remedy for removal and prevention of incrustation in steam boilers, is in great demand and giving universal satisfaction in all parts of the country.

J. S. GRAHAM & CO., Rochester, N. Y., have recently shipped to the Empire Lumber Co., Chattanooga, Tenn., an outfit of flooring machines, self-feed gang ripping machines, automatic knife grinder, &c., for use in the company's mills at Seddon, Ala., and Empire, Ga. This is the third order J. S. Graham & Co. have received from this company within the past 16 months, including five planers, two resaws, self-feed gang rippers, &c., and is a creditable recognition of their first-class planing mill machinery.

THE American Gas Controller & Fixture Co., of Springfield, Mass., Mr. Geo. Dwight, Jr., general manager, are in the field with a perfect gas-controlling device for lighting private dwellings, factories, hotels, churches and other institutions, that is attracting much attention. It consists of a patent burner which regulates the consumption of gas at the burner tip, assuring perfect combustion, a steady flame with unvarying outline, no smoking of the ceiling and no waste of gas to foul the atmosphere. It is claimed that the use of this burner effects a reduction of from 25 to 50 per cent. in gas bills.

## A Fire at the Eagle &amp; Phenix Mills.

A fire occurred last night at the Eagle & Phenix mills in an isolated brick building situated above the dye-house. At 8 o'clock a watchman is going through the mill heard the noise of water flowing through the automatic sprinkler pipes. Search was at once instituted, and it was found that a fire had occurred in the building mentioned, which was used for storage of lime and a dye stuff known as auxiliary, or zinc dust, and that one of the four Hill automatic sprinklers had opened on the fire some fifteen or twenty minutes previously and was flooding the room with water. This water flow had caused the noise noticed by the watchman. An oak barrel heavily bound with broad iron hoops and having both heads tightly in place had caught fire by the spontaneous combustion of the dye stuff and burned through the barrel. The room was 18 by 20 feet square, and the large outside door was standing open, yet the burning of the wood of one-half of the barrel had caused the sprinkler to open and extinguish the burning wood. Water only heats auxiliary and that material had to be submerged to cool it off. The barrel was standing on a wooden floor, but it was not scorched, and the building shows no marks whatever of the fire, except water marks from the discoloration by the water against the walls. A watchman had visited the building at 7 o'clock and found it all right. Loss nominal. —Columbus (Ga.) Enquirer Sun.

This shows the great value of the Hill sprinklers. They are always on duty, day and night, ready for every fire that may occur.

THE works of the Ball Engine Co., Erie, Pa., manufacturers of high-speed automatic cut-off engines, are crowded to their utmost capacity with orders for their engines. Among their recent shipments are the following: Denver (Col.) Electric Illuminating Co., two 80 horse-power engines; Seeger & Huernsey, St. Augustin, Mexico, one 25 horse-power engine; city of Greenville, S. C., one 100 horse-power engine; Thomson-Houston International Electric Co., Australia, one 60 horse-power engine; Atlantic City (N. J.) Electric Light Co., one 200 horse-power engine; Olean (N. Y.) Electric Light Co., one 60 horse-power engine; Paterson (N. J.) Electric Light Co., three 100 and one 80 horse-power engines; Lynn (Mass.) Gas Light Co., one 100 horse-power engine; Electric Improvement Co., Santa Clara, Cal., one 80 horse-power engine; Akron (O.) Electric Street Railroad Co., two 200 horse-power engines; Electro-Automatic Transit Co., Baltimore, Md., one 100 horse-power engine; Pensacola (Fla.) Electric Light Co., one 100 horse-power engine; Danville (Pa.) Electric Light Co., one 80 horse-power engine; Brattleboro (Vt.) Gas Light Co., one 30 horse-power engine; Walla Walla (W. T.) Electric Light Co., one 35 horse-power engine; Thomson-Houston International Electric Co., Hiogo, Japan, one 25 horse-power engine; Ada (O.) Electric Light Co., one 80 horse-power engine; Blaisdell & Pride, Jacksonville, Fla., one 40 horse-power engine; W. W. Cummer, Cadillac, Mich., one 100 horse-power engine; Paul Kuhake, Clyde, O., one 25 horse-power engine; City Gas Light Co., Norfolk, Va., one 80 horse-power engine.

SALES of Babcock & Wilcox boilers for July and August, 1888:

	H. P.
Magniess Cotton Mills, New Orleans, La., 3d order	750
Pierce, Butler & Pierce Mfg. Co., Syracuse, N. Y.	408
J. Arce & Co., City of Mexico, Mex., ad order	61
Morel & Verbeke, Gaud, Belgium	163
Corporation of Glasgow, Glasgow, Scotland	920
Row & Co., Plymouth, Eng.	20
East River Gas Light Co., Ranenswood, L. I., ad order	51
Kaukauna Paper Co., Kaukauna, Wis.	250
Van Nortwick Paper Co., Batavia, Ill.	125
Dowson Economic Gas & Power Co., London, Eng.	114
Glenfield Co., Limited, Kilmarock, Scotland, ad order	128
Bartholomew & Leicht Brewing Co., Chicago, Ill., ad order	244
Hampton Normal & Agricultural Institute, Hampton, Va.	120
A. & F. Parker & Co., Birmingham, Eng.	140
Player Bros., Birmingham, Eng.	220
Societe Francaise de Matreol Agricole, Vierzon, France	63
Vanderbilt University, Nashville, Tenn., ad order	82
Worcester Polytechnic Institute, Worcester, Mass.	51
Gordon's Mills Paper Co., Aberdeen, Scotland	810
Impresa Concesionaria de Aguas Subterraneas del Llobregat, Barcelona, Spain	63
Millward, Bradbury & Co., Liverpool, Eng., 6th order	61
G. W. Gail & Co., Baltimore, Md.	244
London Electric Supply Corporation, Limited, London, Eng.	3,020
The City of Keokuk, Iowa	90
Alfonso Flauger, Barcelona, for new electric station, Valencia	416
E. Atkins & Co., Boston, Mass., for Cuba, ad order	156
The Shelby Iron Co., Shelby, Ala.	592
Ingle Cienaguilla, Abreus, Cuba	146
Western Electric Co., Chicago, Ill.	268
Western Electric Co., for New York City, ad order	448
Leon Pequie, Vendee, France	40
City of Sandwich, Ill.	61
Louis Fontaine, La Madeleine les Lille, France	673
Grand Avenue Railway Co., Kansas City, Mo., ad order	200
Gordon & Maxwell Co., Hamilton, Ohio, ad order	146
Takata & Co., London, Eng., ad order	83
Irlbacher & Davis, Buffalo, N. Y.	246
W. E. & J. Riggs, Kent, Eng.	75
The W. B. Oglesby Paper Co., Middletown, Ohio	166
Pianas Escuelas Hermanos, Barcelona, Spain	131
Alex. B. Barry, Moscow, Russia	95
Chicago Sugar Refining Co., Chicago, Ill., 3d order	272
Black & Clawson, Hamilton, Ohio	60
C. B. & Q. R. R., Oquawka, Iowa, ad order	105
Societa Generale Italiana di Elettricità Sistema Edison, Milan, 9th order	105
A. Flauger, Barcelona, for new electric station, Valencia, ad order	268
Anglo-American Brush Elec. Light Co., Ltd., London, Eng., 4th order	30
Consolidated Electric Light Co., New York City	360
Walker Bros., London Eng., 8th order	20
Ingle Portuguese, Cienfuegos, Cuba	450
New York Life Insurance Building, St. Paul, Minn.	312
New York Life Insurance Building, Montreal, Canada	225
St. Paul Railway Co., St. Paul, Minn.	64
Making the total sales for two months	13,165

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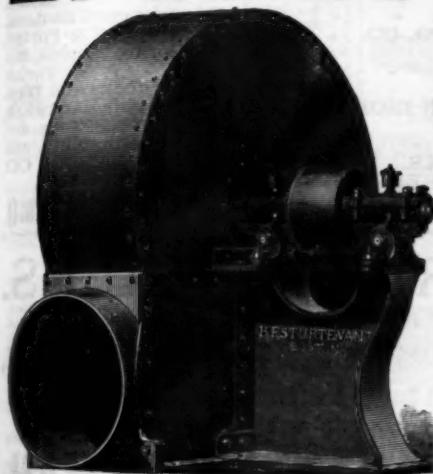
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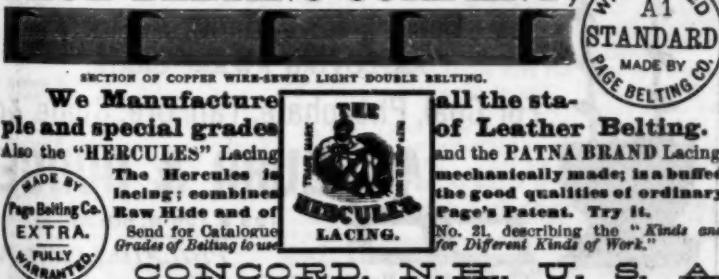
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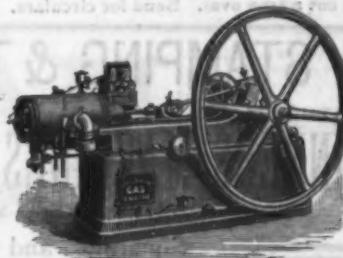
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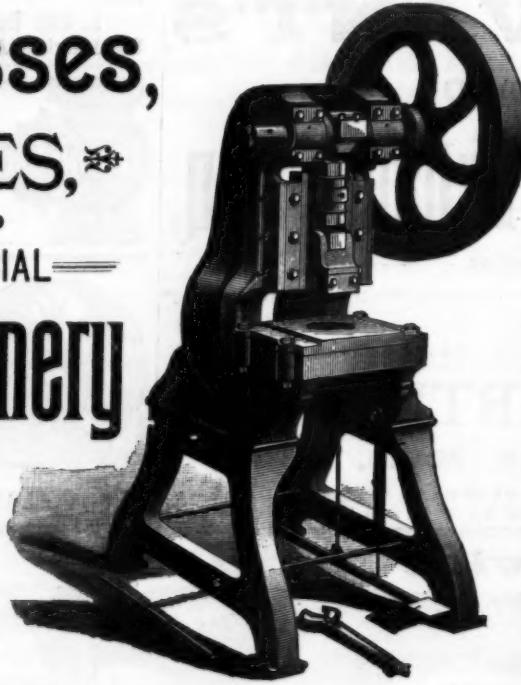
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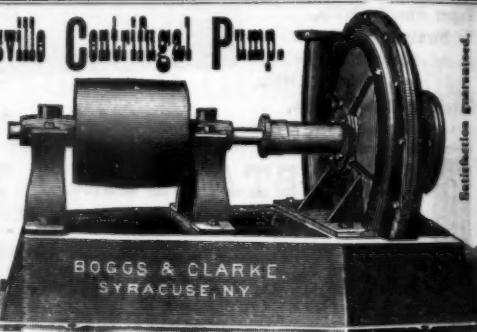
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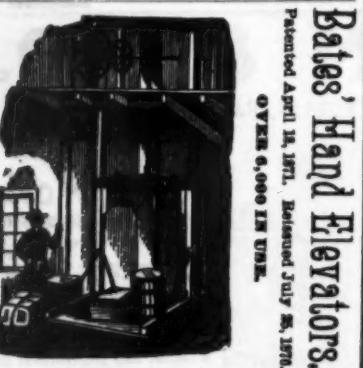
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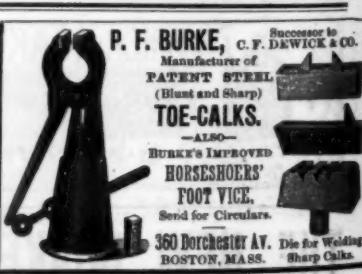
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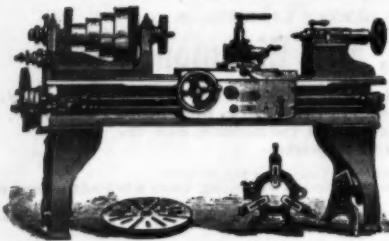
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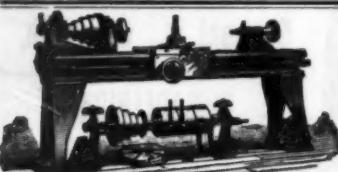
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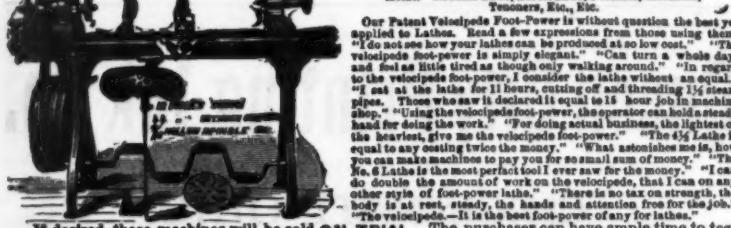


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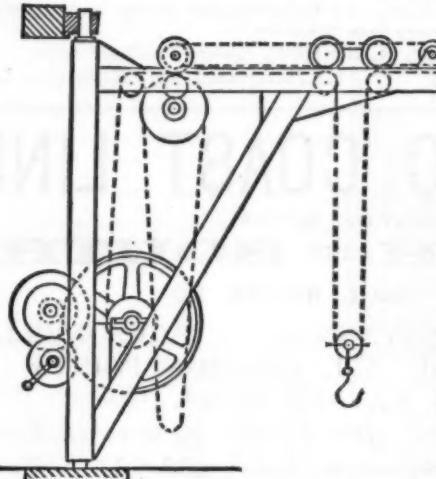
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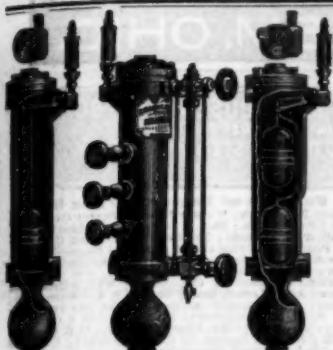
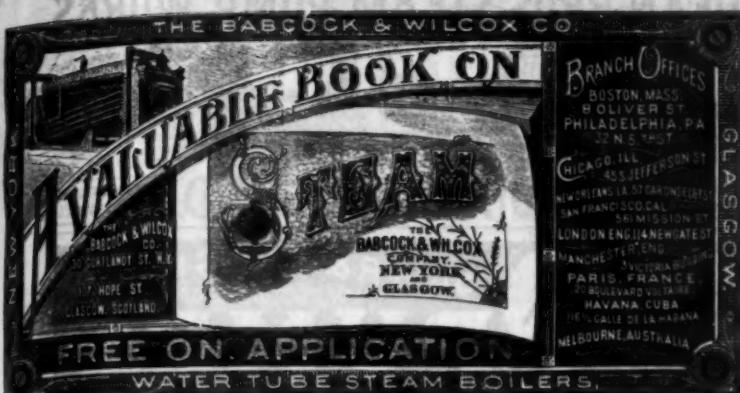
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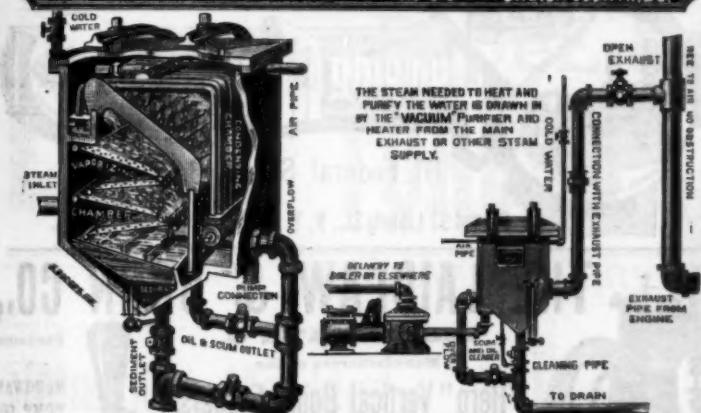
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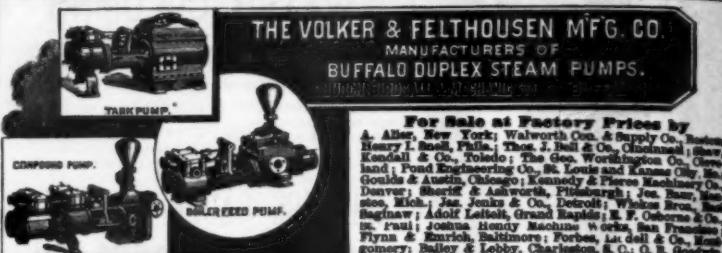


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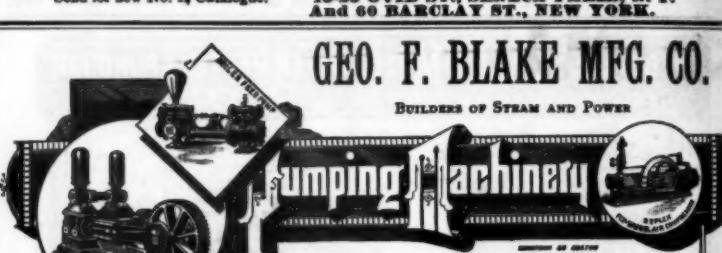
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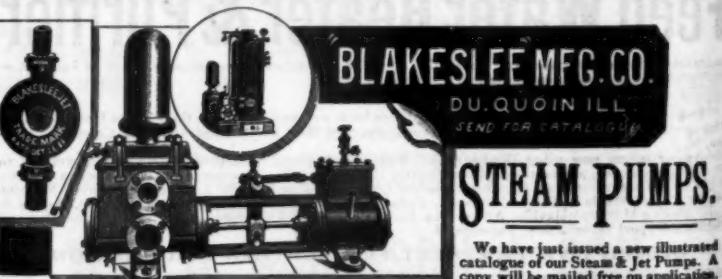
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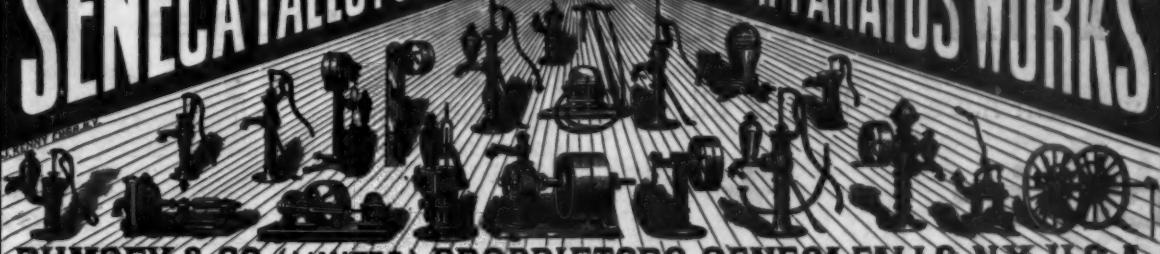
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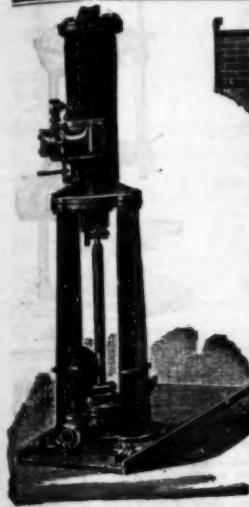
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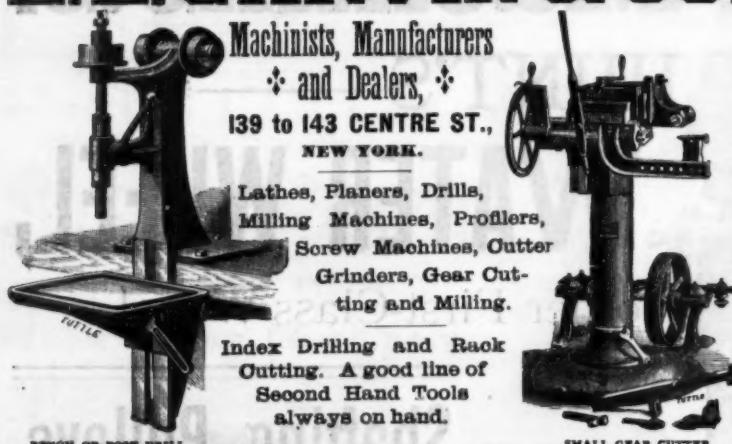
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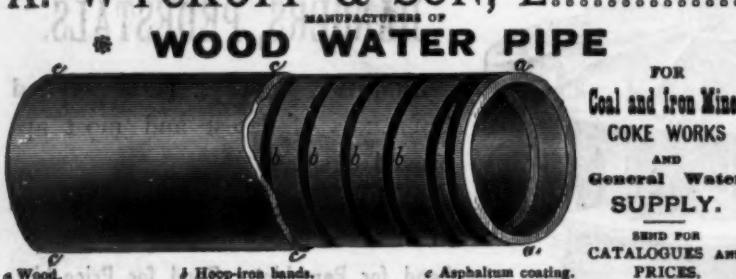
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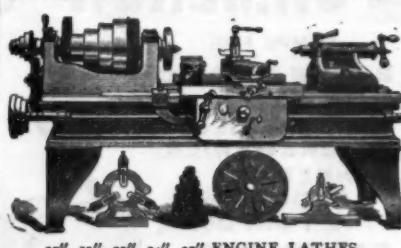
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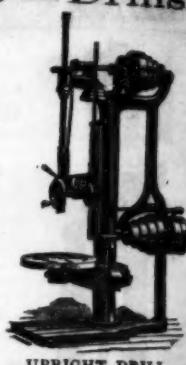
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